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# Australian Orchid Review

Royal Botanic Gardens  
Melbourne

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# Good News

At last: our new mail order catalogue for 2001

April 4-8 **Melb. Int. Flower Show Mt Beenak at site A04**

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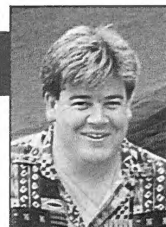
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## From the Editor's Desk



The majority of this issue is devoted to the "dancing lady" orchids - the genus *Oncidium*. This will become an important pictorial reference for these Central and South American epiphytes, with a large number of species depicted with quality photographs. Chris Nicholas is an expert grower of many of the cooler growing genera, and with wife Phyl, has one of the most comprehensive botanical orchid collections in Tasmania. This feature article is based on the lecture presented by Chris, at the recent successful Australian Orchid Conference, held in Burnie, Tasmania. He discusses the cultural needs of these plants and complements this with his first class photos of his own plants. I am still envious by the way he grows *Oncidium concolor*!

Dieter Weise is another very knowledgeable and highly respected orchid grower, lecturer and judge from Victoria. I have been privileged to have seen Dieter's collection on a number of occasions, and learn something from every visit. He is one of the best species orchid growers in Australia. In this issue, Dieter discusses his cultural methods for growing *oncidiums*, with special emphasis on the cooler growing, mountainous species from Colombia and Ecuador.

Bill Lavarack continues his series, this time with the bizarre *Dendrobium spectabile*. Bill (with Wayne Harris and Geoff Stocker) has just published the fine, comprehensive book - *Dendrobium and its Relatives*. This will be reviewed in the next issue. Rudolf Jenny updates us with a review of the genus *Paphinia*. Articles by Brian Milligan are always interesting and have a cultural slant. This issue, Brian talks about growing orchids on mounts, as opposed to pot culture.

### Orchid Fairs

These are increasing in popularity, as there is a concentration of quality orchids, from various nurseries, available at one location. These are also great social events.

#### Sydney International Orchid Fair

Following the outstanding success of the 1999 Fair, there will be two events in 2001. The first will be at Castle Hill Showground from 27-29 April 2001, with the second to be held in mid-October. Over twenty vendors will be attending with orchids, supplies, books, carnivorous plants, cacti & succulents, bromeliads and grafted Australian plants. Free admission and parking.

#### South Australian Orchid Fair

The South Australian Regional Orchid Council will be conducting South Australia's first orchid fair over the June long weekend this year, 9th & 10th June 2001. Featuring orchid displays from Adelaide metropolitan clubs as well as country clubs, plus workshops and plant sales. It will be held at the Walkerville Y.M.C.A. Smith Street, Walkerville. \$2.00 admission.

#### Royale Orchid Fair

This is Australia's original Orchid Fair, now in its 16th year. People travel a long way (including many from interstate) to see and purchase the latest in a wide range of orchid genera. Not only has this weekend (30th June - 1st July) grown into a major social event, it is basically a concentration of "who's who" in orchids. Held at Royale Orchids nursery at Peats Ridge, with free admission and parking.

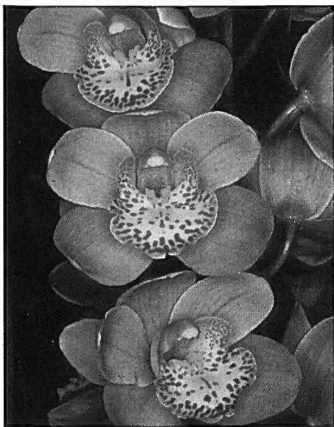
#### St Ives Orchid Fair

To be held 17-19 August 2001 at St Ives Showground, this is a combined show and orchid sales fair using the combined talents of a number of northern suburbs orchid societies.

David P. Banks

Editor, Australian Orchid Review  
dpbanks@ozemail.com.au

## OUR COVER



The year 2000 Sage Cymbidium of the Year, *Cymbidium* (Jessie Blakiston x Lalor's Luck) owned by Helen Palmer. A quality intermediate cymbidium combining flower form, floriferousness and moderate plant growth. A fine example of modern hybridising.





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CONTENTS

Volume 66 — No. 2

April/May 2001

### Features:

|   |                |    |
|---|----------------|----|
| Oncidiums at 43° South .....                                | Chris Nicholas | 4  |
| Growing 'Equitant' Oncidiums –<br>A Beginners View .....    | Bruce Wood     | 15 |
| Oncidiums and their cultivation .....                       | Dieter Weise   | 16 |
| <i>Dendrobium spectabile</i> .....                          | Bill Lavarack  | 19 |
| Addendum to<br>"A Review of the Genus <i>Paphia</i> " ..... | Rudolf Jenny   | 20 |
| World Orchid Conference .....                               |                | 25 |
| Growing Orchids on Mounts .....                             | Brian Milligan | 35 |
| Storage of Chemicals .....                                  | Ronald Boyd    | 37 |

### Featuring *Cymbidiums*:

|   |                |    |
|---|----------------|----|
| "Cymbidiums Australia" compiled by the Australian Cymbidium Society |                |    |
| Editor's Report .....   |                | 43 |
| How to join a Cymbidium Club .....                                  |                | 43 |
| Fleurijn Cymbidiums .....   | Rod Smith      | 45 |
| The Valley Orchids 2000 Seedling "Six Pack" ..                      | Graham Morris  | 48 |
| The Cym. Club of WA 2000 Annual Show .....                          | Ted Brinkworth | 51 |
| Fungal Problems in the<br>Cymbidium House – Part 1 .....            | Helmuth Gerber | 55 |
| Correction: Worth the Wait .....                                    | Rob Smith      | 58 |
| Eye-catching Orchids at Ararat 2000 .....                           | Dean Roesler   | 59 |

### Regular Features:

|                              |    |
|------------------------------|----|
| From the Editor's Desk ..... | 2  |
| New on the Bookshelf .....   | 27 |
| New Orchid Hybrids .....     | 29 |
| This & That .....            | 39 |
| Cultural Notes .....         | 40 |
| Showdates .....              | 61 |
| Buyer's Guide .....          | 62 |
| Advertiser's Index .....     | 62 |

### Editorial copy:

Articles for publication and consideration should be sent to:  
AOR Editor,  
David P. Banks, 14 McGill Street, Lewisham, NSW 2049  
All other correspondence to:  
AOR Publisher,  
Graphic World, 14 McGill Street, Lewisham, NSW 2049.

### Advertisers:


Deadline for advertising copy for the June/July 2001 issue is Wednesday, 18 April, 2001.

All advertising bookings and enquiries should be directed to Barry Badger.  
Phone: (02) 9560 6166. Fax (02) 9564 0516.

### Subscriptions:

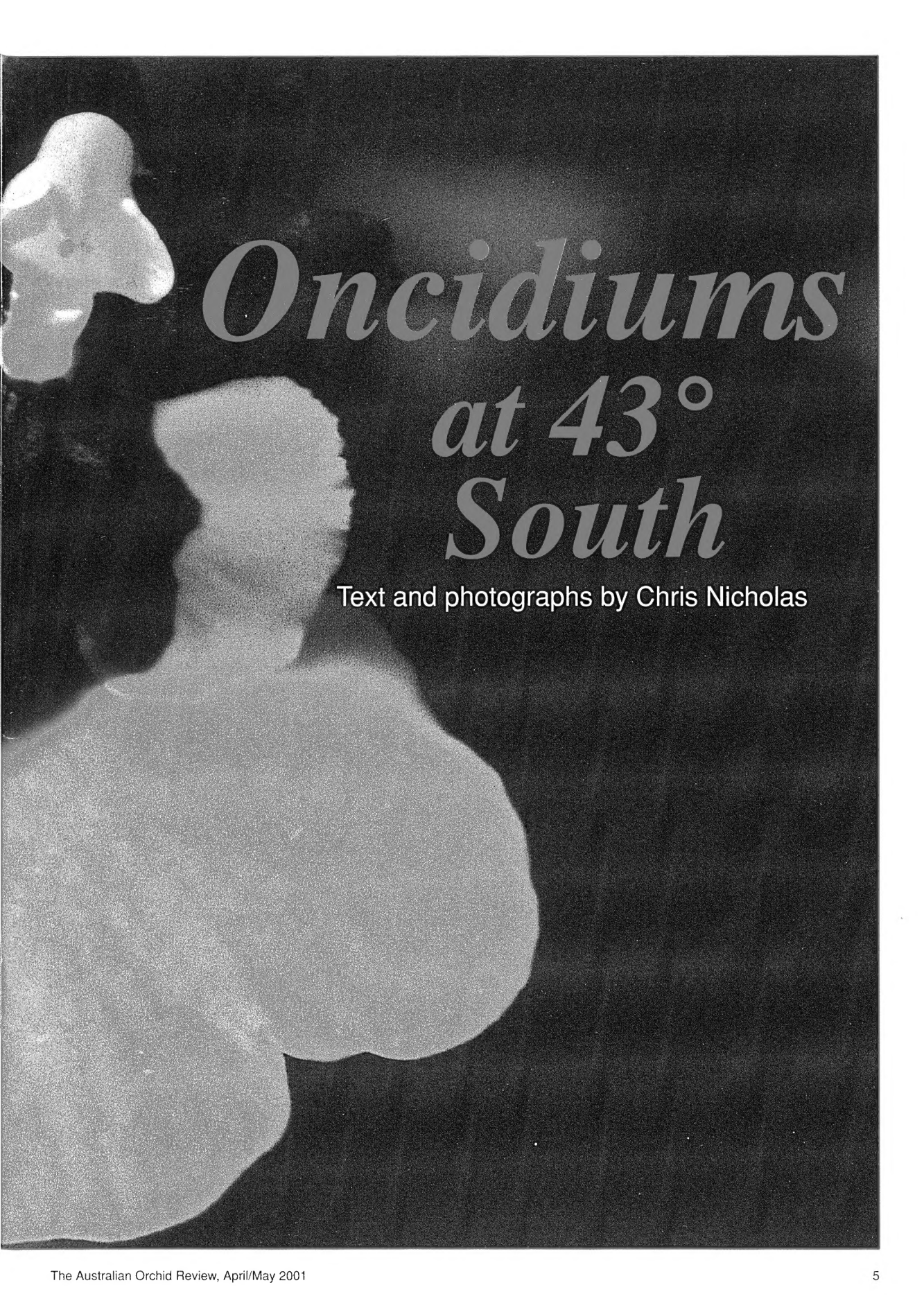
See insert for Subscription information.





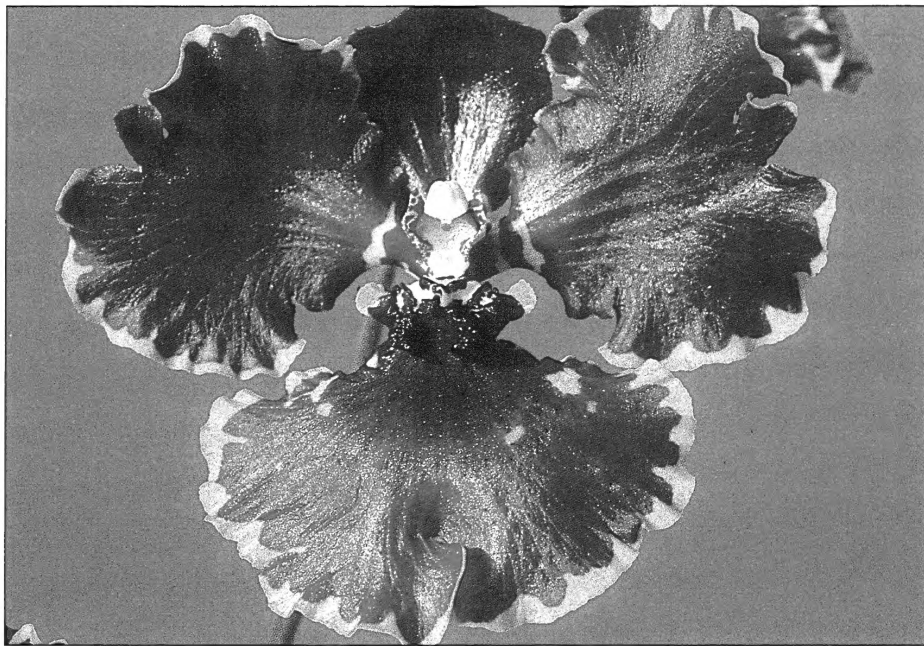
*Oncidium varicosum* should be in all collections. There are many varieties; the best known being "var. *rogersii*" but my favourite is the cultivar 'Baldim'. There has been a great deal of hybridising done with this species and I would recommend any seedlings that become available.





# *Oncidium* *at 43°* *South*

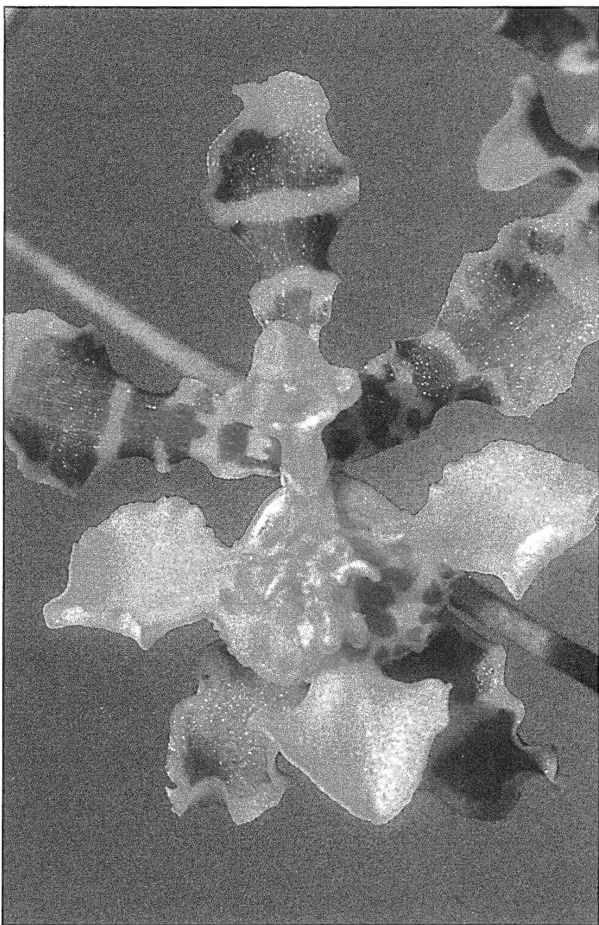
Text and photographs by Chris Nicholas



*Oncidium zappii* is a fairly recent discovery from Brazil. Very colourful and variable in form.



*Oncidium brachyandrum* hails from

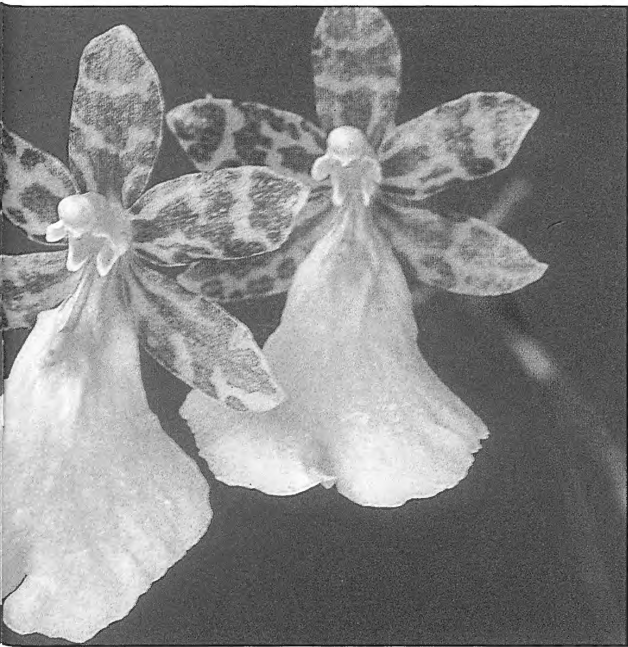


*Oncidium barbatum* is native to Brazil. A miniature grower it is equally at home mounted or grown in a pot.



*Oncidium hastilabium* from Colombia was previously included in the genus *Odontoglossum*. It is very free flowering with the large blooms carried on an inflorescence in excess of one metre.





South Mexico and is closely related to the Brazilian *O. concolor*.



*Oncidium macronix* blooms in mid-summer and carries a wealth of smaller blooms.

The title of this article is the same as that of a paper delivered at the recent 15th Australian Orchid Conference in Burnie and to my mind ably demonstrates where orchid growers in Southern Tasmania are located in relation to the rest of Australia. We are actually in the fringe of the fabled 'Roaring Forties', those westerly trade winds much utilised by sailing clip-pers of the 1800's on their way from England to Australia.

A glance at an atlas will show that we are on a similar latitude to Christchurch in New Zealand, Isla Grande in Chile and for David Attenborough fans the wilds of Patagonia are just over the horizon. After that there is nothing between South America and Tasmania apart from the Southern Ocean with its changing moods so its no wonder our weather is at times unpredictable and a challenge to orchid growers.

Actually we experience quite a mild climate, far more temperate than most of mainland Australia. In my location we have about six frosts per winter with summer maximums venturing into the low thirties. The past winter was frost-free and the meteorological bureau assures us our temperatures are definitely warming with winter 2000 up to 1° above average. Apart from a jaunt overseas during the early to mid 1940's, I have spent my entire life in southern Tasmania and have certainly noticed the change, even in my lifetime. Needless to say I would not consider living elsewhere. We do have our problems, one of the typical ones being a cold, southerly drizzle which can persist for a week or more during winter, not very pleasant particularly if you have just watered your plants. Overall, unpredictable best sums it up but contrary to popular belief we do not always experience all four seasons in the one-day, only occasionally.

Oncidium-wise we have our limitations; we cannot grow "equitants", "rat-tails" such as *O. stipitatum* or other warmer growing species such as *O. onustum*, *O. luridum*, and *O. lanceanum* etc without masses of heat and even then not usually very successfully. On the other hand, particularly if we have a slightly heated cosy area, the range of cool growing oncidiums is almost endless provided the grower uses a degree of common sense.

For example, I cannot grow *O. concolor* in a pot but it does well mounted on cork oak where I can better control the watering, particularly during the winter. Similarly I cannot retain roots on *O. duveenii* or *O. gravesianum* in a pot but they are very happy mounted. These are just a few examples; I have found a number of others to which this principle, or the reverse, applies. In other words if a plant is going backwards don't just wait for it to die do something about it, you will usually be rewarded.

### Housing

My plants are growing in what I would describe as a free-standing lean-to type glasshouse. This is approximately 9.5 metres by 4.5 metres and is over 3 metres at its highest point allowing for good internal air mass.

The walls are partly concrete block surmounted by steel and glass above and the single span roof is also steel and glass. Bear in mind that the house is nearly 40 years old and construction methods were different then. Today, it would be treated pine and Laserlite. It is divided into two growing areas; 2/3 is unheated with winter temperatures at bench level occasionally dropping below 2°C, and the remaining 1/3 mildly heated with a 2.5-kilowatt off-peak storage heater. This rarely drops below 5°C at bench level. Summer temperatures in both areas reach the mid-thirties but rarely much above.

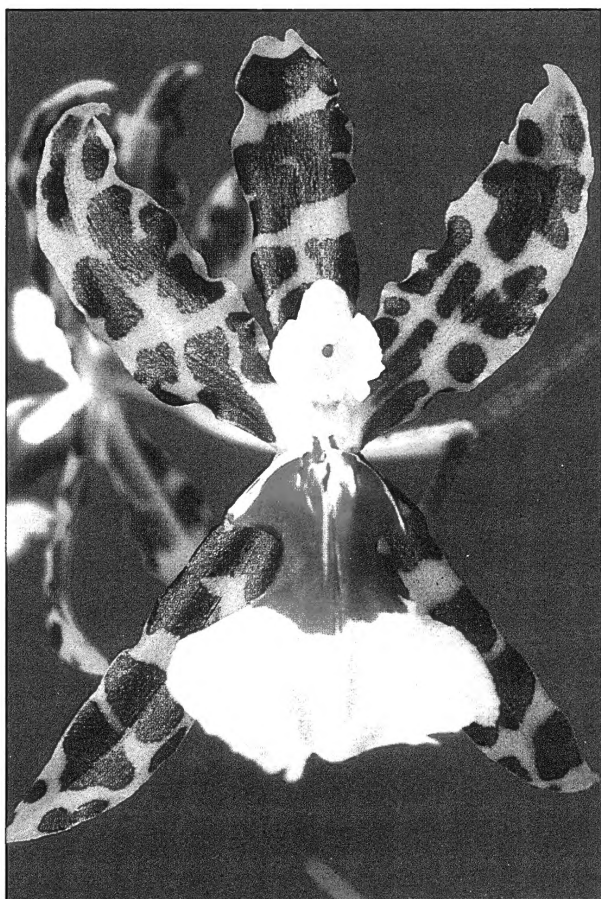
Continually running overhead paddle fans plus wall-mounted fans ensure good air movement with no stagnant pockets. I favour 125mm computer fans for the latter, they can be judiciously placed where needed, make virtually no noise, will run continuously for at least 3 years and are inexpensive to purchase. They appear impervious to moisture.



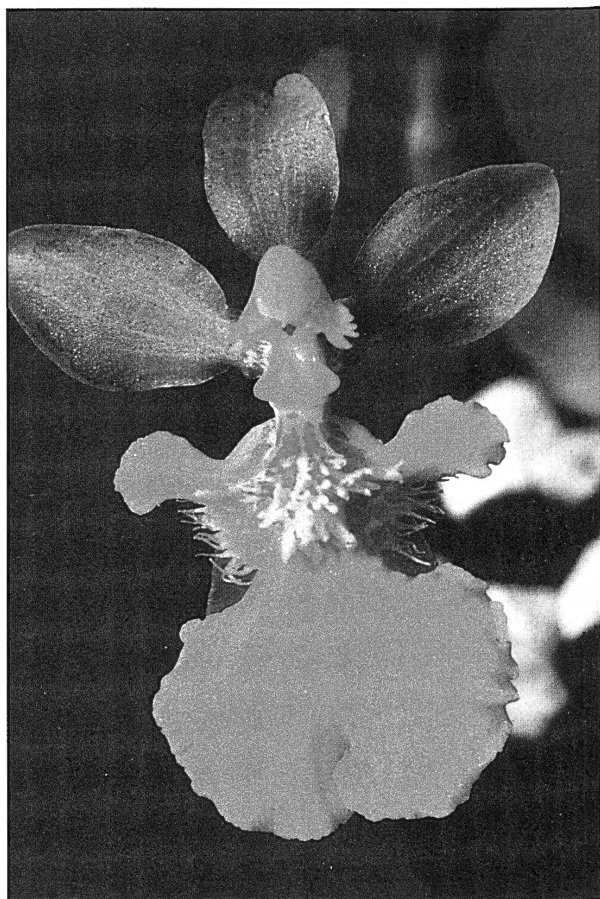
*Oncidium micropogon* has tightly clustered bulbs, which makes for a good showing in a small pot.



*Oncidium croesus* is a must. Unfortunately *O. longipes*, a close relative

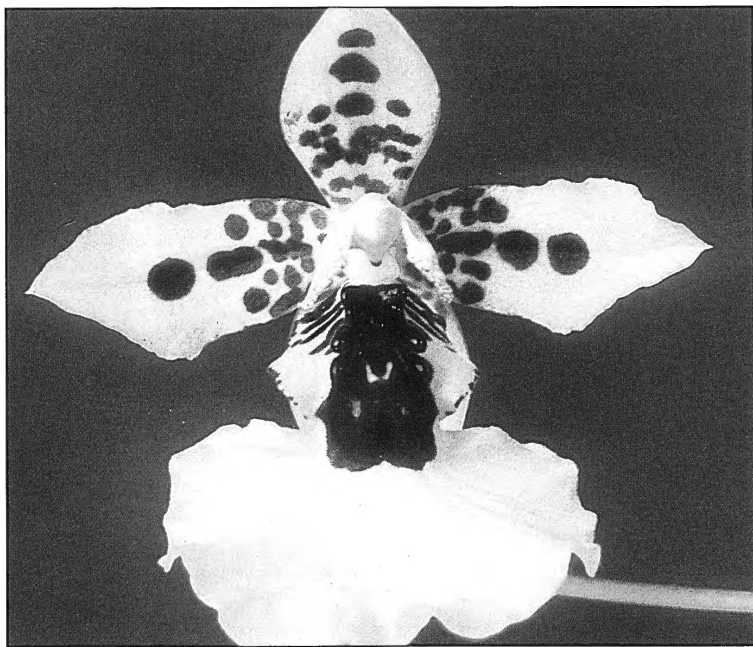


*Oncidium schroederianum* is a close relative of *O. reichenheimii*.



*Oncidium uniflorum* is a clumping grower and enjoys totem pole culture. As its name implies it carries one or, at most, two blooms.





nately many of the seedlings offered today are not *O. croe-* *Oncidium dasystyle*, another Brazilian treasure, is well worth searching for.

Benches are tiered with mesh tops. The tiers allow more plants, better distribution of light and good air circulation through and under the benches.

#### Shading

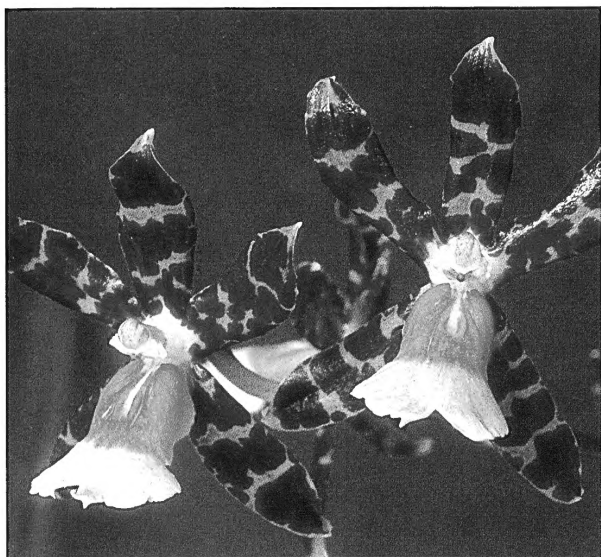
50% white shade cloth is permanently in position about 150mm above the glass. Ideally it should be removed for the winter period but this is too much work these days. Because the house has a fairly flat roof with large expanse of glass facing almost north, solar heat and light becomes a problem in summer bearing in mind that I do not use mechanical coolers.

To overcome this a coating of parasoline is sprayed on the glass

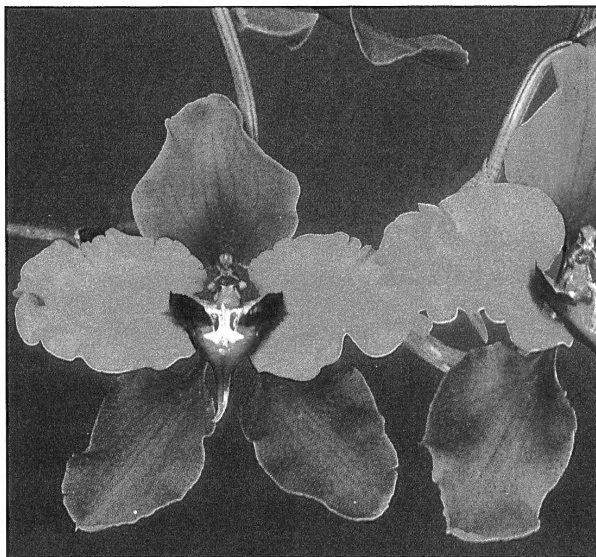
late September with a second coating early December. This largely washes off by the following autumn. Marix cloth is erected internally as and when required over the main summer period and removed as the sun loses its bite, usually around Easter. My main purpose with shading is to ensure maximum light and summer warmth that the plants will appreciate without causing them stress.

#### Potting Mix

This is standard for all the genera I grow and consists of 4 parts bark, previously soaked in limewater and Aquasol, 1 part Absorbastone and 1 part charcoal with gravel added on the pot-



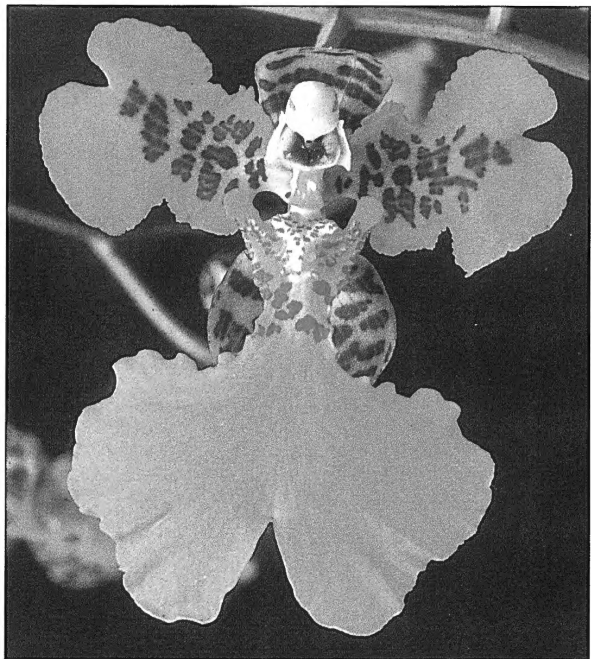
*Oncidium reichenheimii* from Mexico-Guatemala has at times been classified as a *Miltonia* and an *Odontoglossum*. It carries heavily branched inflorescences in excess of 1.5 metres.



*Oncidium macranthum* derives from Ecuador-Peru and is these days classified as a *Cyrtorchilum*. There are two forms but the difference appears to be in the length of the inflorescence. Blooms can be more than 100mm across.



*Oncidium cucullatum* is a high altitude dweller in Colombia-Ecuador and requires cool conditions as do its close relatives *O. phalaenopsis* and *O. nubigenum*.



*Oncidium marshallianum* should be in every collection. It is very free flowering, blooms in November and generally passes these traits and its lovely petal markings on to its progeny.

ting bench. The mix is graded into 2 sizes, with 5mm to 10mm used in up to 100mm pots and 8-18mm size in larger pots. This is a general rule based on each plant's individual root structure and can be varied up or down, eg. a plant with coarse roots and requiring a 100mm pot may be potted in the coarser mix.

Fertiliser is not added to the mix but a sprinkle of hoof and horn is placed on the bottom layer of mix in the pot to encourage roots to head in that direction. That's my theory but sometimes the roots don't understand and come up and out of the pots no matter what I do.

#### Watering – Pots

There are plants hanging throughout the growing areas making overhead watering quite impractical so all plants are watered by hand with hose and soft wand. Frequency varies according to size of pot and time of year, could be twice a week in summer and once every 7-10 days in winter for larger pots with up to 60mm more often. I do not believe in really drying a plant out nor do I like a continuously wet potting mix.

The above programme is supplemented by daily misting up through the leaves during the warmer months. This is also the best eradicator of red spider I know and makes for clean, healthy foliage.

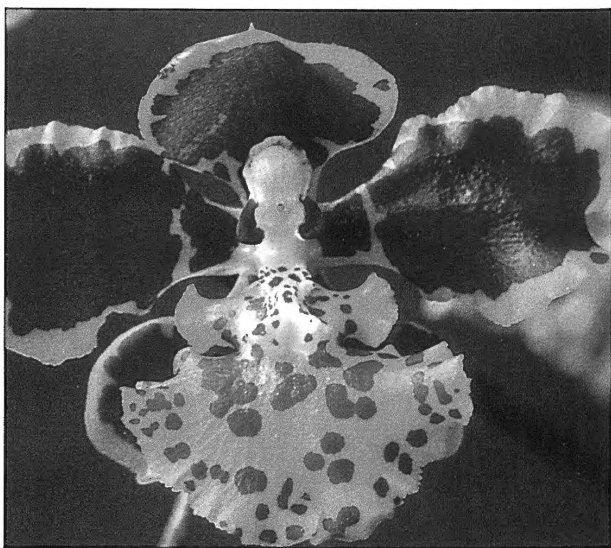
#### Watering – Mounted Plants

Daily misting through the warmer months, with dunking every 2-3 days. Plants are dunked every 4-5 days during cooler months with no misting. Both regimes are flexible in accordance with changing weather patterns.

#### Fertilising

This is always a contentious topic and one that raises the most discussion when talking to orchid clubs. I mainly use Aquasol and Phostrogen and apply through a Hyponex system every 10 days or so at one quarter recommended strength. Dry fertilisers such as Dynamic Lifter are not used.

I have heard much criticism of the Hyponex as an applicator. To my mind it has one fault and that is that it is very susceptible to changes in water pressure. For example, instructions on the box say that it takes 10 minutes to discharge a 9-litre bucket of concentrate. One of my outlets takes 15 minutes and the other 20 so I increase the strength of concentrate accordingly and also make

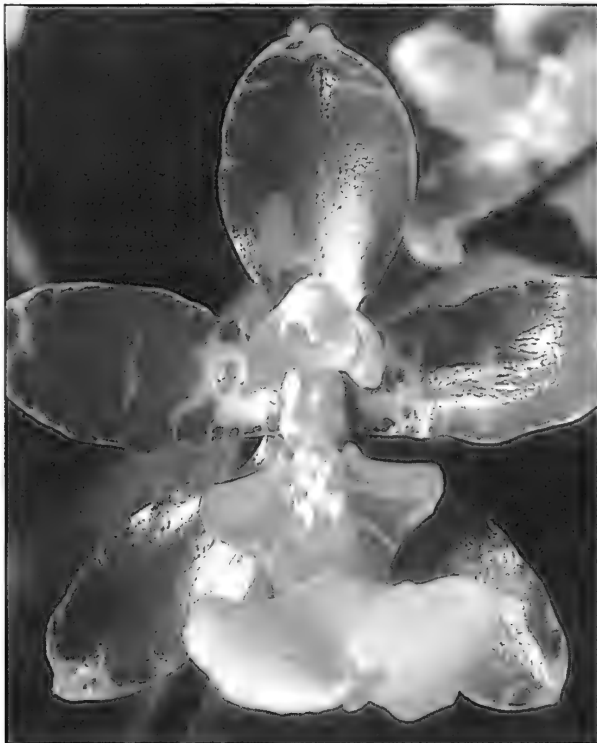


*Oncidium sarcodes* can be difficult to grow but catches the eye with its superbly marked and large sized petals and is dominant when used as a parent. It hails from Brazil.





*Oncidium concolor* has the reputation of being difficult to grow. Try mounting it and keep it slightly drier during winter.



*Oncidium oliganthum* is notable for its 'enamelled' blooms.



*Oncidium Kaiulani* shows that all oncidiums are not brown and yellow. It is a crossing between *O. ornithorhynchum* and *O. flexuosum*.



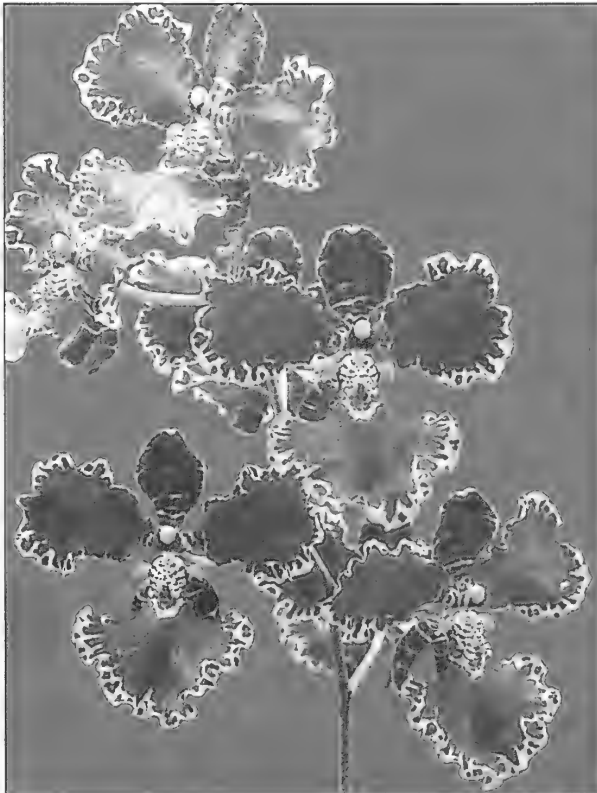
*Oncidium Dance Review* is another striking bloom. Its parents are *O. crispum* and *O. ornithorhynchum*.



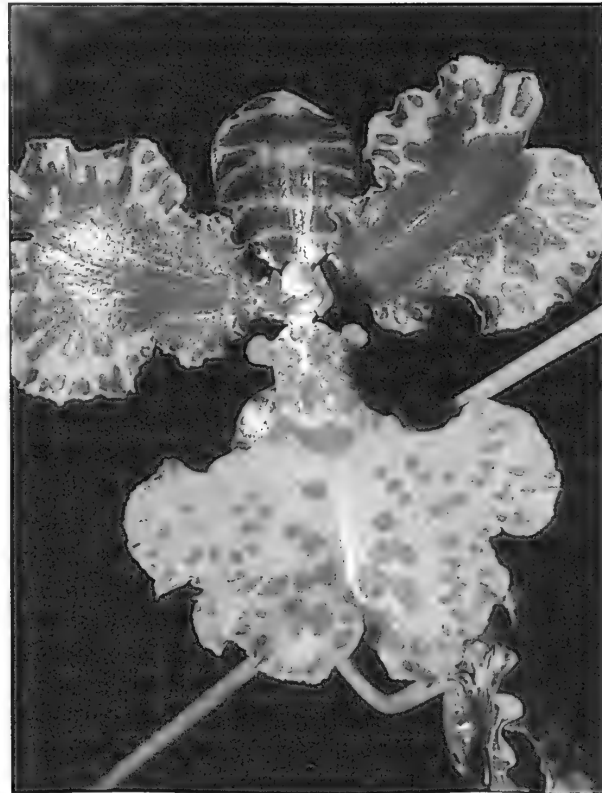
*Oncidium Sharry Baby* is an old American hybrid but still popular today for its fragrance and large branching sprays of long-lasting blooms.



*Oncidium leucochilum* makes a striking sight with its long branched inflorescences. There can be marked differences between clones.



*Oncidium forbesii* is well known in most collections and is a lovely species.



*Oncidium duveenii* is a fairly recent find from Brazil and is most striking and desirable.



sure Phyl does not decide to turn the washing machine on half way through I always give a heavy coverage to ensure there is a supplementary run-off into the pots.

Spray fertilising commences at the finish of the *Sarcochilus* blooming season in November and continues through to the end of the growing season usually about Easter. Apart from an occasional dunking for the mounted plants no fertiliser is used during the intervening period. This is mainly because I do not believe in fertilising dry plants and our winter weather is not conducive to pot watering plants and then foliar spraying them. It could take days for the foliage to dry.

Similarly I have too many plants overall to apply liquid fertiliser to pots by hand and rely on building up strong, healthy plants through the summer that will stand the rigours of our winters. Overall my plants may not be as lush as some other growers, bulbs may be smaller but I am quite satisfied with the floral result. Some day I may change my approach but if I made huge bulbs I'd have to move the plants into larger pots and I haven't any more bench space to put them on.

### Pests

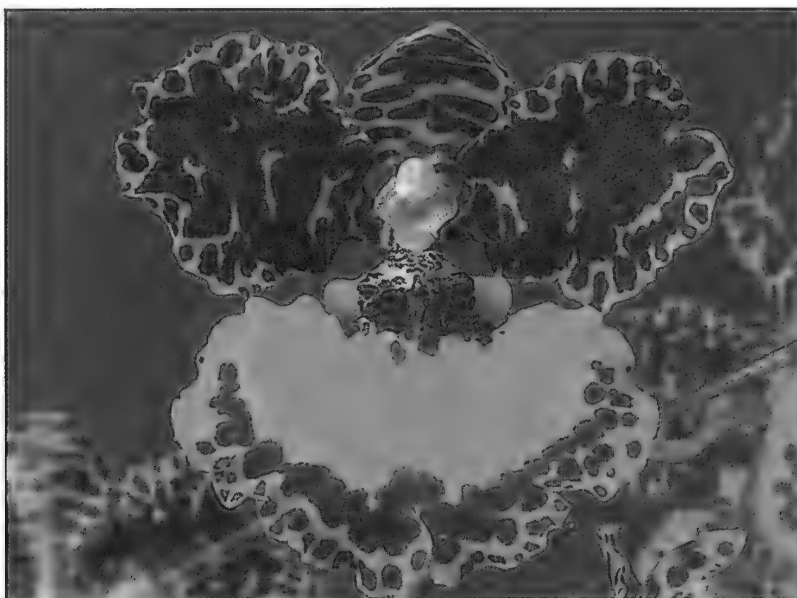
I wear hat, respirator, overalls, waterproof boots, rubber gloves etc. whenever I spray. Respirator cartridges are changed regularly. **Aphids** usually appear spring and autumn. One spray around the top of the pots with Metasystox at the first sign will completely obliterate them within 24 hours. **Red Spider, False Spider Mite**, etc. are not usually a problem because of daily misting both sides of the leaves during warmer months. If necessary run-off spray with Kelthane, two applications September into October which is their breeding season in Tasmania.

For **Scale** and **Mealy Bug** I use Rogor, two sprayings' when the beasties are active. Whilst Rogor is a systemic, sprayed plants should be given a thorough coverage both sides of the leaves to ensure better control. I inherited both the above pests on some plants I acquired and this advice for eradication was given to me by the chief entomologist from the Tasmanian Department of Agriculture. It worked. The Rogor label also states it is effective on aphids, red spider and thrip amongst others so it is a good all round spray.

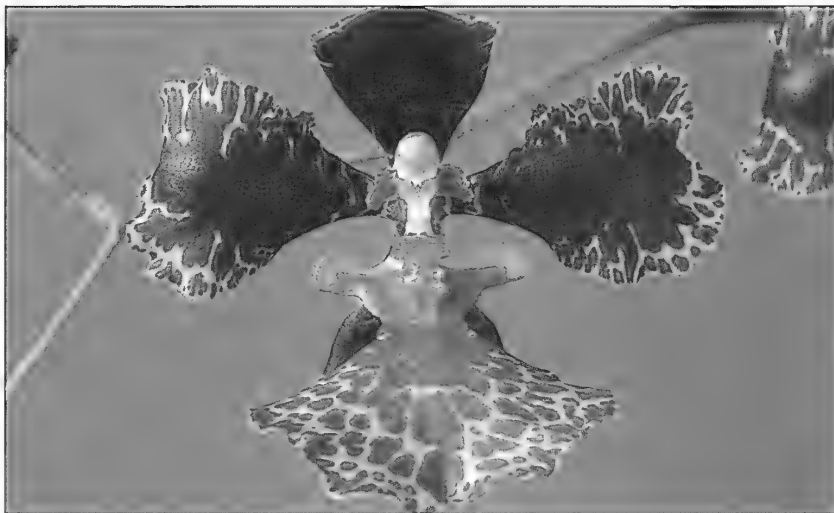
**Borers** in Wood Mounted Plants When it is obvious that borers are active the plants are cleaned off with a firm jet from the



*Oncidium tigrinum* from Mexico has been used more than any other *Oncidium* in the breeding of Odontocidiums.



*Oncidium gardneri* is reputedly a natural hybrid and in turn is a dominant parent.



*Oncidium Paul Baker* is a crossing of *O. sarcodes* and *O. Mantinii*. Most *O. sarcodes* hybrids are very eye-catching.

hose and then submerged in Carbaryl for 15 minutes. This does not obliterate them but keeps colonies under control. A longer soaking would probably do the job. I rarely get Fungal Diseases on my plants. I haven't sprayed for yonks', mainly I think because of good air movement and the fact that the house is run fairly dry through the winter.

*I cannot stress too much that the above products are very toxic and utmost care should be taken in their use and handling.*

The foregoing is an outline of my growing methods here in Southern Tasmania. Most of you would have much more favourable conditions and should find them a breeze.

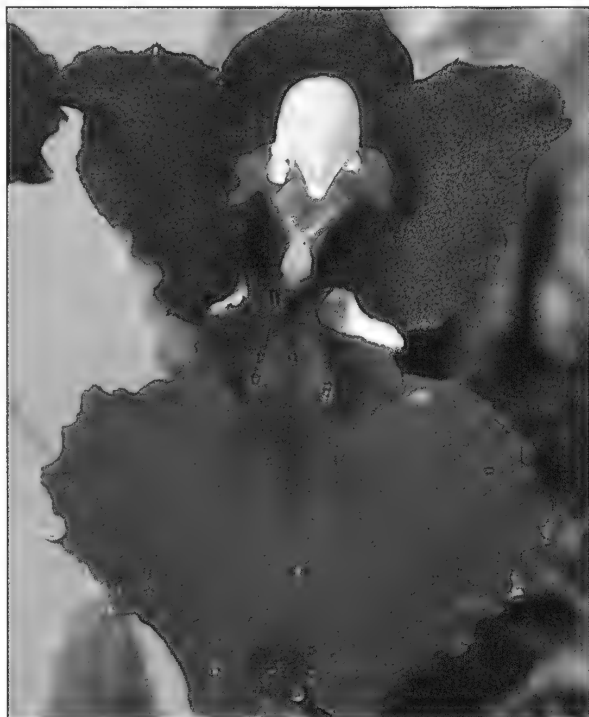
Having said all that I am often asked for advice as to what

enthusiasts should grow. This is a difficult question to answer. The first set of criteria to consider is what are your objectives with the genus. Do you want to grow them for sheer pleasure, for exhibiting at shows or is colour and year round blooms your aim, etc? Do you prefer large blooms or do you enjoy the intricacies and usually prolific blooming of smaller members of the family. Whatever choice you make you won't be disappointed. All depicted plants grown and photographed by the author. ■

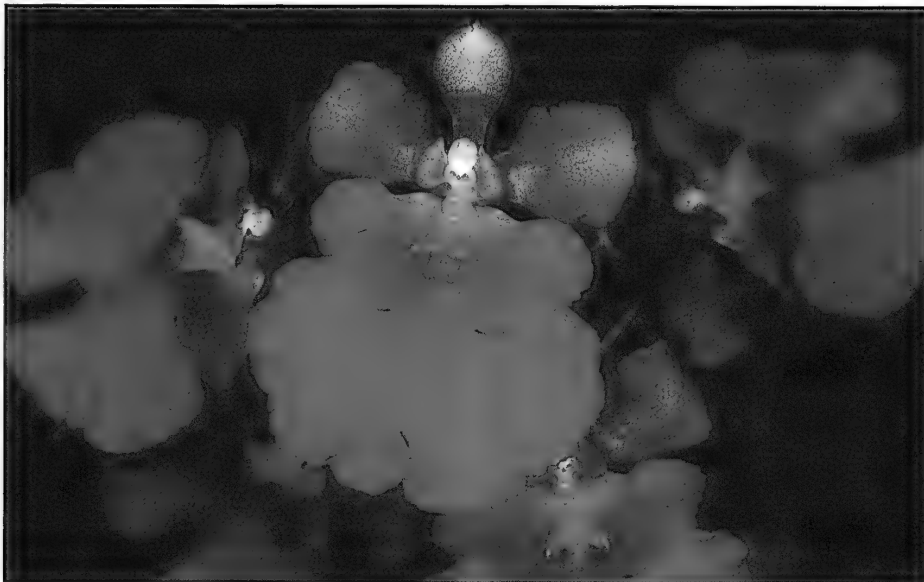
**Chris Nicholas**  
7 Kelvin Avenue  
Moonah, Tas. 7009



*Oncidium Specialty's Cameo* shows great variation in its blooms with some progeny almost identical to the *O. concolor* parent.



*Oncidium Specialty's Cameo*, another clone with purple-black blooms.



*Oncidium Tom Wilson*. Grower – Phil Spence, Photo – David Titmuss.

# Growing 'Equitant' Oncidiums – A Beginners View

By Bruce Wood

"Grow it dry" was the advice that accompanied the gift of an unnamed 'equitant' *Oncidium* (now reclassified as *Tolumina*, but old names stick). Information was sought from friends and written articles on the culture of 'equitant' oncidiums, all the advice being "Grow it dry". I assumed (the old ass out of you and me trick) that to grow a plant dry you withheld water.

I followed the above advice with the original plant and several other purchased plants and did my very best to kill them. The plants were suffering; it was time to reassess the situation, which led to the development of a culture that works for me. I have been growing 'equitant' oncidiums for several years now and have not lost a plant.

## Light:

I live on the Central Coast of New South Wales. My only orchid house is a short wall glasshouse; running in a north/south direction, in which I grow mainly grow the *Cattleya* alliance. The house is covered with a layer of 70% white shade cloth with a second layer added in summer. The 'equitants' are hung on both the north and south walls of house. I find that some plants require more light than others to flower successfully. Once the correct end is determined they grow with vigour.

## Air Movement:

I believe that constant air movement is the most important aspect of growing 'equitant' oncidiums. Oscillating fans mounted on the north and south walls of the house run continuously. The plants are mounted on the walls, at fan height, so with each oscillation of the fans the plants experience air passing over them.

## Pots and Medium:

All plants are grown in terracotta pots of a size to suit the individual plants but never over potted. The bottom half of the pot is filled with polystyrene foam and topped with treated pine bark. The size of the bark being in the medium to coarse grades. This affords excellent drainage and provides a large air space around the roots, thus maintaining the roots in perfect condition.

## Water and Fertiliser:

I water and fertilise the 'equitant' oncidiums every time I water and fertilise the *Cattleya* alliance. Summer watering maybe three times a week and winter once every ten to fourteen days. I fertilise (very weakly) every second watering. The relative humidity is maintained at a high level by wetting the floor of the orchid house during periods of warm to hot temperatures.

## Temperature:

The house is heated with a natural gas heater, in winter, maintaining a minimum temperature of 10-12°C with an average summer temperature of 28°C with short periods extremes of 35°C.

## In Conclusion:

With the combination of good light, continuous air movement and perfect drainage I now understand that I am indeed following the advice first given, "Grow it Dry", whilst still maintaining the health and vigour of the plants by satisfying their needs for water and fertiliser.

They are very rewarding plants to grow.

**Bruce Wood**  
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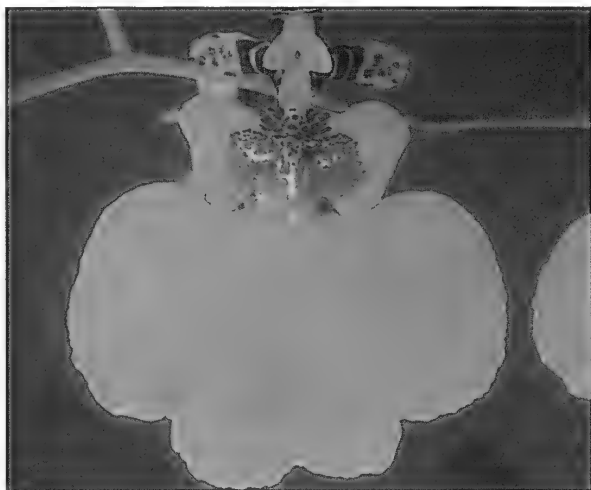
# Oncidiums and their Cultivation

by Dieter Weise

Oncidiums are orchids of the Americas, their habitats ranging from Florida south to Argentina. *Oncidium* is a very diverse genus with over 400 species that grow at altitudes between sea level and 4000m. In this article I will deal with the *varicosum*- and *crispum*-type hybrids. A feature of these oncidiums is the large, frilly brown or yellow labellum. These easy-to-grow orchids are often called Dancing Ladies. Most hybrids are the result of crossing *O. varicosum*, *O. crispum*, *O. forbesii*, *O. gardneri*, *O. flexuosum*, *O. marshallianum* and *O. enderianum*. These orchids originate in the Organ Mountains of Brazil at altitudes between 1000m and 1500m, and they are therefore well suited to cultivation in cool climates. When well grown they produce spectacular floral displays.

## Housing.

The above oncidiums may be grown in a cold glasshouse or in a frost-free shadehouse that has a solid roof to provide shelter from winter rains. However a glasshouse heated to a minimum temperature of 8°C will cause new growths to initiate earlier and will result in larger pseudobulbs and better flowerings Oncidiums



*Oncidium varicosum* grower and photo: Chris Nicholas



*Oncidium cheirophorum* grower and photo: Howard Gunn



*Oncidium* (Christian Dior x Palolo Gold) grower and photo: Chris Nicholas

love plenty of fresh air, which can be provided by opening the door and roof vents and using an oscillating fan for good air circulation. The level of light should be about the same as that provided for cymbidiums. At the beginning of October I put a layer of shadecloth (shade factor 50%) over the white fibreglass roof and remove it at the end of April.

## Potting.

Oncidiums can be grown either in pots or by tying them to tree fern slabs, cut virgin cork or wooden logs. Another way is to grow them in wooden baskets packed with chunks of tree fern. With pot culture it is important to choose pots with good drainage. I usually punch extra drainage holes in the sides of my pots to aid aeration of the root system.

Oncidiums should be repotted when the new growths are developing new roots, which usually happens in springtime. If possible, the newly developing growth should be positioned in the centre of the pot, so that the plant has room to grow for two years before it needs repotting again. Good quality, chunky bark should be used. A stake should be inserted to steady the plant, because a wobbly plant will never develop a good root system.

## Mounting.

I prefer to use either mounts or wooden baskets and mount my plants on pieces of tree fern, cork, English oak (*Quercus*) or paperbark (*Melaleuca*). Twistie ties or fishing line can be used to tie the plant to the middle of the mount, which should be about 500mm long to allow plenty of room for the roots to ramble. When wooden baskets packed with chunks of tree fern are used, the roots rapidly penetrate the tree fern. The mounts or baskets can be hung from the roof using hooks or wire. Under favourable



*Oncidium longipes* grower: D.P. Banks, photo: David Titmuss



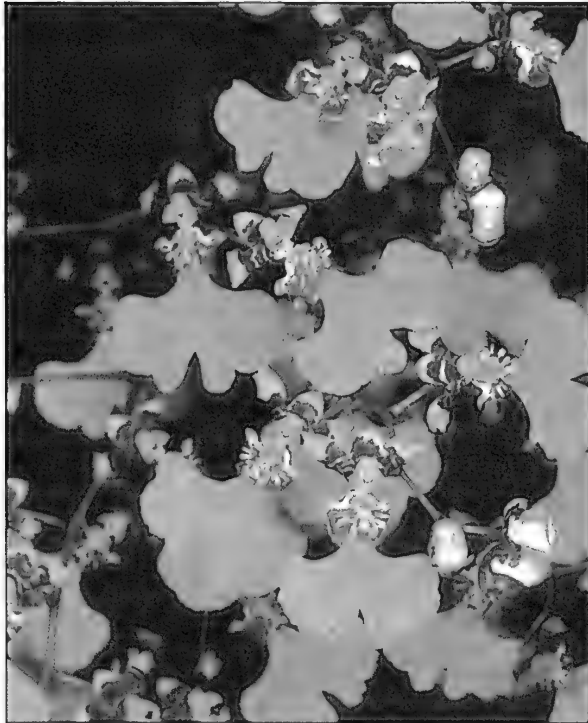
*Oncidium hians* grower: D.P. Banks, photo: David Titmuss

conditions *oncidiums* develop extensive root systems, which will stay in good condition for many years if mounts or baskets are used, although this is not always the case with pot culture. The only disadvantage with mounted plants is that they need watering more frequently than do those in pots.

#### Watering.

*Varicosum-type* *oncidiums* are seasonal growers, subject in

nature to wet, warm summers and dry, cool winters; they should be treated the same way under cultivation. In the case of mounted plants I begin watering regularly when the plant begins to develop new growths in September or October. It is important to water them thoroughly, rather than simply spraying the plants as you walk by. The colour of the roots should change from white to grey-green when they are wet, and I like to see a droplet of water hanging from each root tip during hot weather and when plants



*Oncidium flexuosum* grower: Don Hogan, photo: David Titmuss



*Oncidium* sp. (ex. Ecuador at 2200m) grower and photo: Dieter Weise



*Oncidium ornithorhynchum* grower: D.P. Banks, photo: David Titmuss

are producing flowering spikes, mounted plants should be watered as often as possible. Flowering usually occurs in April, May or June. After flowering, watering should be reduced to once every seven to ten days. It's natural for the pseudobulbs to shrivel a little during dormancy – they soon become plump again when normal watering is resumed in spring.

The same principles apply to pot-grown plants, although watering should not be as heavy. It's better to let the bark dry out a little between waterings, because *crispum*- and *varicosum*-type oncidiums can lose their roots if the potting medium is kept continually wet. It is often said that oncidiums sometimes flower themselves to death. It happens with pot-grown plants that are over-watered, leading to a broken-down, soggy potting mix and a weak root system. The result is a weak new growth, which cannot support its flowering spike. In such cases the spike should be removed and the root system inspected. All dead and soft roots must be removed and the plant repotted in fresh Sphagnum moss, using the smallest pot that will accommodate the plant. The moss should be kept just moist until new roots appear, which may not occur until springtime.

#### Fertilising

There are no magic fertiliser formulae. Any balanced fertiliser, applied at one quarter of the manufacturer's recommended concentration at alternate waterings, is sufficient. If the root tips die and the main roots turn brown, then the fertiliser is (or was) too concentrated. Its strength should then be reduced.

#### Other Cultural Tips

It is best to cut the flower spikes off first flowering seedlings as soon as the first bloom opens to minimise the likelihood of the bulb shrivelling and affecting future flower production (or the health of the plant).

It is very important (with the *varicosum* types) not to water the plants when they are dormant during winter as this may kill the root system. Members of the *Rostrata* section, such as *O. ornithorhynchum* and *O. cheirophorum*, which have small pink and glossy yellow flowers respectively and the montane species *O. nubigenum* and *O. phalaenopsis* are best grown in a moss/bark mix or in sphagnum moss alone and kept as cool as possible during summer. Members of the *Cyrtorchilum* section of the genus

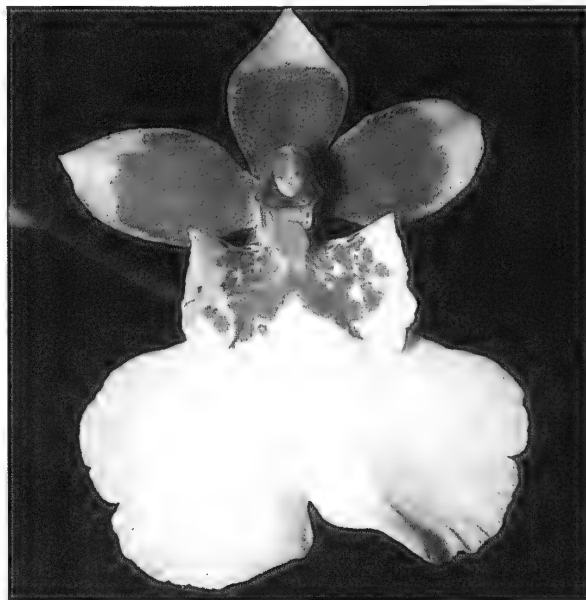


*Oncidium phalaenopsis* grower and photo: Dieter Weise

*Oncidium*, perhaps better treated as the genus *Cyrtorchilum*, also prefer cool conditions during summer. They grow into large plants that, because of their climbing habit, are best grown on 'totem poles' supported in pots. *Oncidium* (or *Cyrtorchilum*) *macranthum* is one of the most spectacular, carrying many large yellow flowers on inflorescences up to 3m tall (growers usually train the developing flower spikes on circular hoops, so that the plants can be transported and shown at society meetings).

No orchid collection is complete without a couple of plants of this showy genus. Observation, followed by speedy action, is the key to good culture and will lead to good flower production and great satisfaction.

Dieter Weise  
10 Harrow Gardens  
Wantirna Vic 3152



*Oncidium nubigenum* grower and photo: Dieter Weise



# *Dendrobium spectabile* (Blume) Miq.

Synonyms: *Latourea spectabilis* Blume; *Dendrobium tigrinum* Rolfe ex Hemsley; *Latourorchis spectabile* (Blume) Brieger

*Dendrobium spectabile* was first described in 1850 by Blume from a plant collected in what is now Irian Jaya by Leschenault de la Tour (hence the name "Latourea") on the Baudin expedition of 1800 – 1804. Thus there was a gap of almost 50 years between its discovery and description and then a further gap of 40 years before it became known in cultivation. As far as the horticultural establishment was concerned it remained a mystery plant until almost the end of the nineteenth century. The weirdly shaped, large flowers clearly represented a potential commercial success to anyone who could successfully import plants to England. In 1884 a few plants collected on the island of San Christobal in the Solomons arrived in England and were described erroneously as *D. tigrinum* by R.A. Rolfe.

Determined to be the first to offer it for sale, the well known orchid nurseryman Frederick Sander dispatched his most reliable collector, William Micholitz to New Guinea and the Solomon Islands in search of it on at least two occasions – in 1894 and 1899. On the second occasion he was successful in obtaining 1500 plants from the Cloudy Mountains on San Christobal. Unfortunately it proved a "poor traveller" and all died on the trip to England. In the meantime Veitch's had successfully imported a small shipment, but soon after Sander succeeded in obtaining another large consignment of this species. Within a year, a plant with a miserly (by today's standards) four flowers won a First Class Certificate at the Royal Horticultural Show and caused great interest in orchid circles.

This species is noted for its large, spectacular, almost grotesque, twisted flowers and interesting colours. It is a robust epiphyte from the hot, steamy lowlands of New Guinea, Bougainville Island, the Solomons as far south as Vanuatu. It grows in swampy lowland forest and lower mountain forest up to about 1000m, occasionally in coconut plantations and rarely on rocks. It commonly grows high up in the canopy where it is one of the largest epiphytes. The pseudobulbs are cylindrical, up to 60 cm long and 2 to 3 cm thick with up to 6 leathery leaves at the apex. The inflorescences arise from just below the leaves and are erect, with up to 20 flowers, each 4 to 8 cm across and dis-



tinctively-twisted in all their parts. They are fragrant and last about eight weeks. The flowering season in the natural habitat is in the dry season, usually in winter. In Townsville my plants flower at almost any time of the year, but predominantly in winter.

In cultivation, this is a relatively easy species to grow, although water lodging in the bracts on the developing new growths can cause rotting and loss of the growth. It will grow into a large plant and requires room in the orchid house. The plants should be grown in a well-drained pot of

relatively coarse medium that allows the roots to be well aerated. Bright, filtered light is best, but the plants grow well in full sunlight if slowly acclimatised to it. Warm, humid conditions with year-round watering, are required and a heated glasshouse is necessary in southern parts of Australia. Regular fertilising with a dilute fertiliser is beneficial. The plants flower best when they have been established in a pot for several years. A number of specialist nurseries stock seedlings of this distinctive species.

## Further reading

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# Addendum to “A Review of the Genus *Paphinia*”

by Rudolf Jenny

Since I submitted the manuscript of “A Review of the Genus *Paphinia*” (AOR 65{2}: 4-14) in late 1999, two new species and a new variety have been described. Besides this, I also have new information about the identity of some of the illustrated species. It is therefore necessary to add a few corrections to the previous article and to show the new species, *Paphinia zamorae* and *Paphinia levyae*, for the first time in colour.

## *Paphinia randii* L. Linden & Rodigas

Following the determination of Leslie



Fig 1: Drawing of *Paphinia cristata* from the Reichenbach herbaria in Vienna, probably a yet undescribed colour form.

Garay, *Paphinia randii* is given specific rank, being separated from *Paphinia cristata* by a rounded and not triangular, acute column wing (Garay, pers.com.). I have not seen fresh material of *Paphinia randii*, so it is not possible for the moment for me to decide whether *Paphinia randii* is a valid species or a synonym of *Paphinia cristata*.

## *Paphinia neudeckeri* var. *mocoaensis* Jenny

Only one single plant has been collected of this very attractive variety, from near Mocoa in Colombia by Tilman Neudecker. Morphologically the flower is identical



Fig.2: *Paphinia rugosa* var. *kalbreyeri* Rchb.f. from Colombia (Slide Howard Gunn)

with *Paphinia neudeckeri*, but the colouration is quite different. Fortunately the type specimen of the variety is still alive and seedlings are available. This variety was described in 1984 by Jenny, in the German bulletin *Die Orchidee* (Jenny, 1984). The area of Mocoa, where the plant was collected is in Colombia and not in Ecuador as wrongly stated in the checklist (Jenny, 1999). *Paphinia neudeckeri* var. *mocoaensis* is obviously close allied to *Paphinia herrerae* Dodson but only new collections from the Mocoa-area could help us to answer that question.

## *Paphinia tigrina* hort.

This name was used for the first time in 1851 by Perot (Perot, 1851) and is identical with *Houlletia tigrina* because *Paphinia tigrina* is mentioned as a synonym in the text of the first description of *Houlletia tigrina* in 1853 (Lindley & Paxton, 1853)

## *Paphinia grandiflora* Barb.Rodr.

This was the second species in the genus, described in 1877 by Barbosa Rodriguez in *Genera et Species Orchidearum Novarum* (Rodriguez, 1877). The coloured drawing of *Paphinia grandiflora* – mentioned in the first description – remained unpublished until 1991, when the remaining collection of the drawings he made for his *Genera et Species Orchidearum Novarum* – more than one hundred years later – was published. A black-and-white version of Rodriguez drawing was published by Cogniaux in Martius' *Flora Brasiliensis* in 1902 (Cogniaux, 1902).

## *Paphinia grandis* Rchb.f. ex Moore

This species was described and illustrated 1885 in *Orchid Album* by Moore after a manuscript note of Reichenbach. The illustration was made by J.Nugent Fitch after a plant from the collection of Williams. A second illustration made after a plant from the Linden nursery in Belgium was published in *Gardeners' Chronicle* in 1893, the drawing was made from a plant shown at the meeting of the Royal Horticultural Society on October 24th 1893. In the Kew herbarium is a flower from the collection of the Glasnevin Botanical Garden, sent by F.W. Moore in October 1892, which is identical with the plant illustrated by Fitch in the *Orchid Album* (Garay, pers.com.).

The size of the flowers of *Paphinia grandis* Rchb.f. ex Moore and *Paphinia grandiflora* Barb.Rodr. is very different, it is very possible that *Paphinia grandis* is an own species, different from *Paphinia grandiflora* (Garay, pers.comm.). Unfortunately there seems to be no living material of *Paphinia grandis* sensu Rchb.f. available from culture. The wrong decision to treat *Paphinia grandis* as a synonym of *Paphinia grandiflora* goes back to Cogniaux (Cogniaux, 1902).

## *Paphinia levyae* Garay

Mrs. Joan Levy imported this species from Ecuador, and the description was published by Leslie A.Garay 1999 in the *Harvard Papers of Botany* (Garay, 1999). *Paphinia levyae* is unique in the genus by having a pair of large, subquadrate lamellae at the base of the lip.



Fig.3: *Paphinia grandis* from *Gardeners' Chronicle*, ser.3,14:1893.560, fig.93

***Paphinia levyae* var. *angustisegmenta*  
Garay**

In the same importation one clone was differently coloured. Garay described this clone as *Paphinia levyae* var. *angustisegmenta*. The coloration is pale with washed-out colours; the petals are narrower than in *Paphinia levyae*. The description also was published in *Harvard Papers of Botany* in 1999 (Garay, 1999).

***Paphinia zamorae* Garay**

This new species also appeared from the collection of Joan Levy in Memphis, Tennessee. Geographically the species is clearly separated from the group around *Paphinia litensis* in the northwestern part of Ecuador around Lita. The closest allied species seems to be *Paphinia neudeckeri*, the main difference between *Paphinia*



Fig.5: *Paphinia zamorae* Garay, slide of the type-specimen from Ecuador (Slide Mrs.R. Levy)

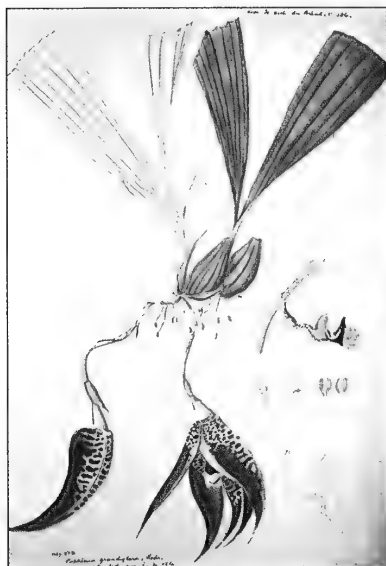


Fig.4: Drawing of *Paphinia grandiflora* Barb.Rodr., done by the daughter of Thyseiton Dyer after the original drawing by Barbosa Rodriguez, copy of Barbosa Rodriguez' original drawing which was published in black-and-white by Cogniaux in 1902 in Martius' *Flora Brasiliensis* (t.93). (With the permission of the controller of Her Majesty's stationary office and the Director of the Royal Botanic Gardens Kew)

*zamorae* and *Paphinia neudeckeri* is the form of the centre callus and the single pair of cirrhi at the base of the lip. Garay described the species in *Harvard Papers of Botany* (Garay, 1999).

**Revised checklist of the genus  
*Paphinia*:**

- Paphinia benzingii* Dodson & Neudecker
- Paphinia clausula* Dressler see *Paphinia cristata* var. *modiglianiana* Rehb.f.
- Paphinia cristata* (Lindley) Lindley
- Paphinia cristata* var. *modiglianiana* Rehb.f.
- Paphinia cristata* var. *randii* Linden see *Paphinia cristata* (Lindl.) Lindl.

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Fig. 6: *Paphinia levyae* Garay, slide of the type-specimen from Ecuador (Slide Mrs.R. Levy)

*Paphinia dunstervillei* Dodson & Romero  
*Paphinia grandiflora* Barb.Rodr.

*Paphinia grandis* Rchb.f. ex Moore  
*Orchid Album* 4:1885.t.145

Type: Iconotype, drawing by Fitch,  
*Orchid Album* 4:1885.t.145

Dist: Brazil ?

*Paphinia herrerae* Dodson

*Paphinia hirtzii* Dodson

*Paphinia levyae* Garay

*Harvard Papers in Botany* 4:301-319  
 (1999)

Type: Ecuador, Lita, ex cult. Mrs.R.  
 Levy, Memphis, Mrs.R. Levy  
 no.7142A Holotype AMES

Dist: Northwestern Ecuador

*Paphinia levyae* var. *angustisegmenta*  
 Garay

*Harvard Papers in Botany* 4:301-319  
 (1999)

Type: Ecuador, Lita, ex cult. Mrs.R.  
 Levy, Memphis, Mrs.R. Levy  
 no.7273A Holotype AMES

Dist: Northwestern Ecuador

*Paphinia lindeniana* Rchb.f.

*Paphinia litensis* Dodson & Neudecker

*Paphinia modigliani* hort.ex Linden see

*Paphinia cristata* var. *modiglianiana*  
 Rchb.f.

*Paphinia neudeckeri* Jenny

*Paphinia neudeckeri* var. *mocoaensis*  
 Jenny

*Paphinia nutans* Houliet see *Paphinia*  
*grandiflora* Barb.Rodr.

*Paphinia posadorum* Dodson & Escobar

*Paphinia randii* L.Linden & Rodigas see

*Paphinia cristata* (Lindley) Lindley

*Paphinia rugosa* Rchb.f.

*Paphinia rugosa* var. *kalbreyeri* Rchb.f.

*Paphinia rugosa* var. *sanderiana* Rchb.f.

*Paphinia seegeri* Gerlach

*Paphinia seegeri* var. *semi-alba* Gerlach

*Paphinia subclausa* Dressler

*Paphinia zamorae* Garay

*Harvard Papers in Botany* 4:301-319  
 (1999)

Type: Ecuador, Zamora-Chinchi,  
 El Condor, ex cult. Mrs. R.  
 Levy, Memphis, Mrs. R.



Fig. 8: *Paphinia grandis*, drawing by J. Nugent Fitch from Warner & Williams, *Orchid Album* (t.145)

Levy no.7202 Holotype  
 AMES

Dist: Southeastern Ecuador

#### Additional Literature Cited:

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Lindley, J. & J. Paxton (1853) *Paxton's Flower Garden*; 3:171 - 178

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e-mail: RJenny@compuserve.com



Fig. 7: *Paphinia levyae* var. *angustisegmenta* Garay, slide of the type-specimen from Ecuador (Slide Mrs.R. Levy)

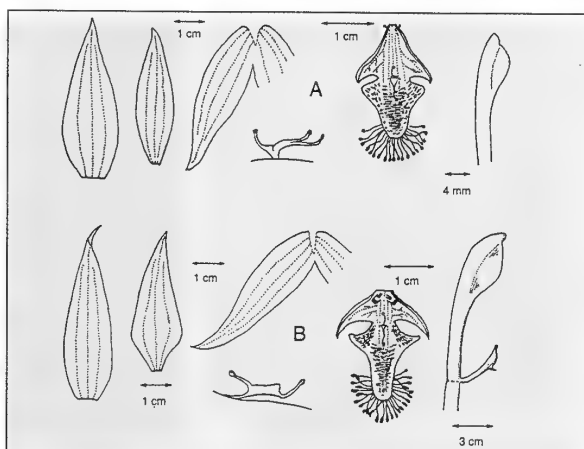


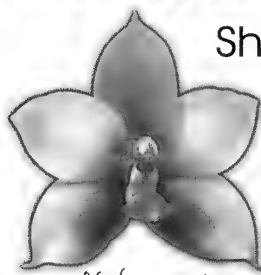
Fig. 9: Drawings of *Paphinia zamorae* Garay and *Paphinia levyae* Garay from *Harvard Papers in Botany*, 1999 (With kind permission of Dr. Leslie A. Garay)

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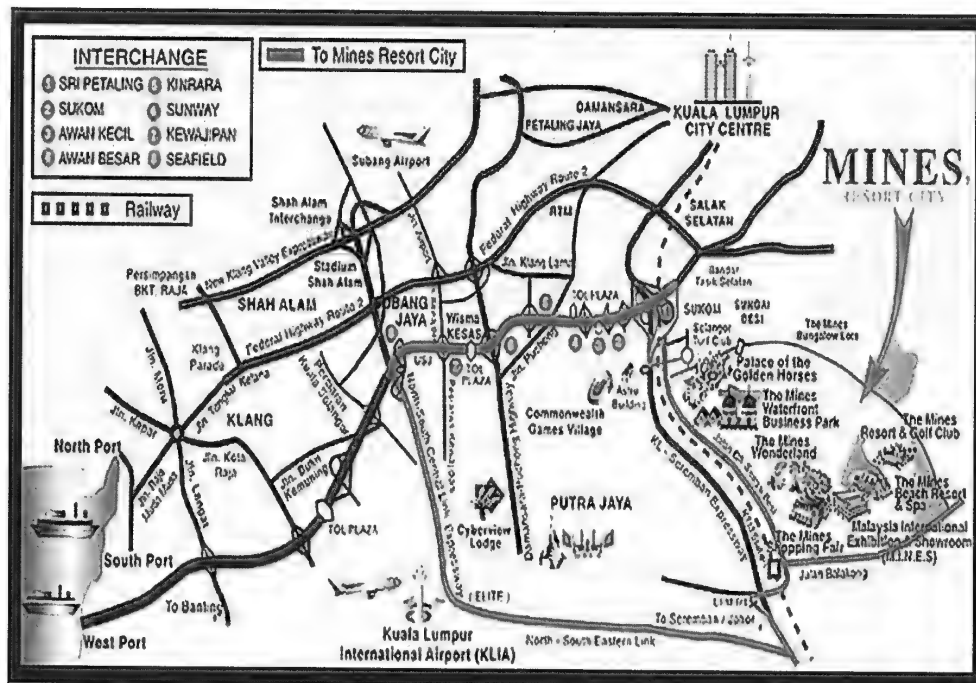
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**Twinkle Twinkle Fire Flies** 22<sup>nd</sup>, 23<sup>rd</sup> & 30<sup>th</sup> April. Half a day watching the birds & monkeys & taking a sampan ride after sunset to see the fireflies on the mangroves. Dinner included

**The Kampung architecture.** 25<sup>th</sup> & 30<sup>th</sup> April. Take a full day to step back into historical architecture at Kuala Pilah & lunch in a paddy field. See the Royal museum

**Banghunis-Experience** the country life 23<sup>rd</sup> & 27<sup>th</sup> April Full day. Not far from K.L. experience village life, see an orchid farm, fruit orchard, oil palm harvesting, medicinal garden. Finish by the sea sipping coconut etc.

Traditional massage Trips available daily. Enjoy a traditional Malay massage. Duration 2 hours

#### SPECIAL ORCHID TOURS

**Langkawi Island/Gunong Jerai/Penang Island.** 21<sup>st</sup> April & 2<sup>nd</sup> May 5days/4 nights. Experience village atmosphere & see thousands of Paph niveum in flower. Expect to see other Paphs, Bulbophyllums, Corybas, Trixspemum, Eria Cymbidium Jewel orchids & lots of birds. 5 days/4 nights.

**Johor Orchid farm.** 20<sup>th</sup> April & 1<sup>st</sup> May. By air to Johor baru to see 2 of Malaysias biggest orchid farms. 2 days 1 night

**Jebeu orchid conservation.** Full day 21<sup>st</sup> & 28<sup>th</sup> April. Coach tour to see native orchids

**Kuala Lumpur/Selangor Orchid Farm** 21<sup>st</sup>, 22<sup>nd</sup> April & 2<sup>nd</sup> May Full day trip

**Penang/Langkawi Island Hopping** 21<sup>st</sup> April & 3<sup>rd</sup> May 4 days/3 nights. View orchids, birds & fishing villages from a boat along with hoyas, ferns, cycas etc. Stay in a resort amongst rubber trees then fly to Penang for a party at Bukit Jambul Orchid, Hibiscus & Reptile Garden. This trip is special.

**Penang/Banding Island** 19<sup>th</sup> April. & 2<sup>nd</sup> May 4 days/3 nights. See orchids from the water. Fishing. Explore historic Penang.

**Kinabulu Orchid Escapade** 19<sup>th</sup> April & 4<sup>th</sup> May 4 days/3 nights. Fly to Kota Kinabulu & drive to the park. Walks to see many orchid species & other flora endemic to Kinabulu.

**Mulu Caves** 19<sup>th</sup> April & 4<sup>th</sup> May 5 days/4 nights. See the famous caves & enjoy the tree-house hotel. 170 species of orchids & 25kms of plank walkway above the jungle.

#### PRE & POST CONFERENCE TOURS

**Sumatra Orchid safari.** 4<sup>th</sup> May 6 days/5 nights. West Sumatra, National Forest etc.

**Jakarta/Bandung** 20<sup>th</sup> April 5 days/4 nights Orchid park, City tour etc

**Land of Smiles** Thailand 19<sup>th</sup> April 5 days/4 nights in Changmai

**Philippines** 1<sup>st</sup> May 4 days/3 nights Manila/Davao etc. **Singapore** 20<sup>th</sup> April 3 days/2 nights Mandai gardens, Sentosa.

Full details of any of the above social events and tours are available per free brochure or at [www.easyorchids.com](http://www.easyorchids.com). Private tours also arranged.



# World Orchid Conference

Shah Alam Malaysia. April 24-May 2 2002

## Lecture Programme

**K**uala Lumpur is honoured to host the 17th World Orchid Conference which will be held from 24 April to 2 May, 2002. The Lecture Programme is one of the most important aspects of all WOCs.

We hope to have a multifaceted 4-day programme from April 26-29, 2002. Our aim is to satisfy the needs and curiosity of both growers and scientists who will attend the 17th World Orchid Conference. The programme will include: (1) keynote speakers who will address selected areas of importance, (2) a day-long symposium in which some of the best-known orchid scientists in the world will explain their areas of expertise without using complex terms, (3) half day mini sym-

posia in which experts will delve in depth into a specific and relatively narrow area, (4) invited speakers who will talk about their area of expertise, and (5) talks by experts on topics of interest to commercial, advanced and beginning growing who may grow many species and genera or specialise in a particular group.

To ensure presentations by established experts, well known scientists and growers will be invited to present many of the lectures. We are also inviting both scientists and growers to contribute talks and posters on subjects of their choice. There will be separate sessions for different categories of contributed talks. Growers and scientists interested in presenting talks should submit a title not later than 30

June 2001. It is to be sent to the Chairperson of the 17th WOC Lecture Programme by email [woc17@orchid2002.com.my](mailto:woc17@orchid2002.com.my), fax (603-62042142) or post: Professor Dr. Helen Nair, Chairperson, WOC17 Lecture Programme, , Biotechnology Division, Institute of Biological Sciences, University of Malaya, 50603 Kuala Lumpur, Malaysia. Written abstracts for both posters and talks must be submitted by 15 July 2001. The deadline for full length papers based on talks or posters is 15 October 2001.

Please consult the 17th WOC website (<http://www.orchid2002.com.my>) for details regarding presentations, formats, deadlines and registration information.

## Event Schedule

### MONDAY – 22 April 2002

0800-2200 – Build-up & staging of large exhibit

### TUESDAY – 23 April 2002

0800-2200 – Staging of exhibit

0800-2200 – Commercial sales area available for stocking

### WEDNESDAY – 24 April 2002

0800-2200 – Final staging of exhibits

2100-2400 – Clean-up of site

### THURSDAY – 25 April 2002

0900-1300 – Judging & Preview

1300-1400 – Judges' Luncheon

1930-2130 – Preview Reception

### FRIDAY – 26 April 2000

0900-0930 – Conference Opening

1200-1800 – Show opens to Registrants

1400 – Evening Social Event – Royal Hi-Tea

1900-2300 – Evening Social Event – Malaysian Night

### SATURDAY – 27 April 2002

0700-0900 – Judges' Breakfast Forum – Chairperson – Ms. Donna Craig

0900-1200 – Keynote Address – Plenary Session Lectures

0900-1200 – Show Opens to Registrants only

1200-2100 – Show Opens to Public

1400-1715 – Lectures (Scientific) – Lectures (Hobby)

1900-2300 – Evening Social Event – Evening at the Twin Towers

### SUNDAY – 28 April 2002

0700-0900 – Hybridisers Breakfast Forum – Chairperson: Dr. Kiat Tan

0900-1200 – Show Opens to Registrants only

0900-1715 – Lectures – Hobby – Lectures – Scientific

1200-2100 – Show Opens to Public

1900-2300 – Evening Social Event – Dinner with the Mayor

### MONDAY – 29 April 2002

0700-0900 – Commercial Orchid Growers' Breakfast Forum – Chairperson – Mr. Ned Nash

0900-1200 – Show Opens to Registrants only

0900-1715 – Lectures (Scientific) – Lectures (Hobby)

0900-2100 – Show Opens to Public

### TUESDAY – 30 April 2002

0900-1200 – Show Opens to Registrants only

0900-1715 – Lectures (Scientific) – Lectures (Hobby)

1200-2100 – Show Opens to Public

1630-1715 – Closing Ceremony, Awards and Preview of the 18th WOC

1900-2300 – Evening Social Event – Closing Banquet

### WEDNESDAY – 1 May 2002

0900-2100 – Show Opens to Public

### THURSDAY – 2 May 2002

0900-2100 – Teardown and Move-out

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*Thank you to all those who attended our Open Weekends in 2000, and we hope this year's Open Weekend is as successful and enjoyable for you.*

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# Orchids in Your Garden

by Robert Friend

144 pp. 230mm x 175mm Softcover.

Published by Halstead Press Publishers

ISBN 1 875684 484 AUD \$29.95

I remember watching one of the popular TV gardening programmes a few years ago, when during a "five minute garden makeover" segment, the presenter was shown planting slipper orchids into the soil of a freshly prepared garden bed, along with assorted other ornamentals. My feelings of disbelief were compounded by the knowledge that some viewers would probably ignore the golden rule of "don't try this at home", and expect success from such an undertaking. They would no doubt have just as much luck strapping a Camellia half way up the trunk of a gum tree and expecting it to survive.

There is a lot to be said for growing orchids as garden plants, but like everything else, a few basic rules need to be followed, and that's where this book comes in. *Orchids in Your Garden* is an entire volume devoted to a topic, which usually rates little more than a paragraph in most other books. That many orchids can be grown successfully in general garden situations is not surprising, for they are adaptable plants and often remarkably tough. What is surprising, however, is the amount of material on the subject contained in this 144-page soft cover booklet.

Of course, it is not all-new information, and much of the material on the plants themselves is contained within existing mainstream orchid literature, but here it is presented in the context of a new perspective.

Arranged broadly in five sections, this book will give the reader all the information and inspiration required to start or perhaps extend an orchid garden. The introductory section contains information about the orchid family, natural orchid habitats, growth forms, climate, selecting suitable types of orchids, cultural considerations, and a bit on nomenclature.

There follow the four main sections: Part A – Types of Orchids, includes general information on epiphytes, lithophytes and terres-

trial orchids, as well as details of recommended genera and species, and also a useful section on pests and their control by mainly biological methods; Part B – Types of Gardens, contains information on large gardens, suburban gardens, courtyard and balcony gardens, as well as maintaining orchid gardens in climatically marginal areas; Part C – Containers in the Garden, includes details on potting and repotting, slab culture of orchids and growing orchids indoors. Part D – References, contains an extensive Table of Recommended Species and a Directory of Nurseries.

As an added bonus, I particularly liked the small historical notes at the tops and bottoms of many of the pages, a number of them direct quotes from early orchid literature. It is fascinating to read accounts of early explorers and collectors, even little snippets like these, and it is clear the author, Robert Friend, is a student of orchid history.

Apart from a few partly out of focus photographs, and the publication of two pictures upsidedown, there is not too much to fault in this book. Modern nomenclature is used with genus *Dockrillia* (although it should be noted that the correct spelling is *D. linguiformis*, not *D. linguaeformis*), and the literary style is concise and attractive.

For specialist orchid growers, the message will be lost to a large extent; they enjoy cultivating their orchids as container plants, usually in modified environments like glasshouses and shade houses. But this book really is aimed at "gardeners", those people who have a general love of plants and who are interested in trying something new. They may have a passing interest in orchids but not the obsessive passion of orchidophiles. This book will give them the information they need to establish an orchid garden, and the confidence that it can be done successfully.

(Robert Friend will be signing copies of *Orchids in Your Garden* at the Sydney International Orchid Fair, Castle Hill Showground, 27-29 April 2001.)

Michael Harrison

North Wilberforce, NSW

Email: mwharrison@ozemail.com.au

# Orchid Books

A selection from our on-line and mailorder bookshop. Postage A\$10 per order worldwide

## The Cattleyas and their relatives. Vol. VI. The south American Encyclia species

Carl L. Withner 2000. This volume deals with the species of *Encyclia*, a group that presents the researcher with many difficulties. In the front of the book are a pictorial and text key to the species. All plants are illustrated, often in line drawings and colour photographs. Hard cover, 72 colour photographs ISBN: 0881924369, 194p., A\$110.00

## Native orchids of peninsular Malaysia

Chris K.H. Teo 1995. Catalogues more than 66 species in 32 genera of native orchids of Peninsular Malaysia. Soft cover, more than 85 full colour photographs. ISBN: 9812045686, 128 p., 200 x 280 mm, A\$25.25

## Native orchids of Southern Australia

David and Barbara Jones 2000. Describes 268 to help identify many of the commoner and special plants in the field (south of Brisbane). Superb colour with descriptions, distribution, flowering periods etc. Soft cover ISBN: 187647324X, 272p., A\$29.95

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# The Orchadian

Journal of the Australasian Native Orchid Society Inc.  
Edited by David P. Banks

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## NEW ON THE BOOKSHELF

### *A Field Guide to the Native Orchids of Southern Australia*

by David & Barbara Jones

278 pp. 214mm x 122mm Softcover.

Published by Blooming Books

ISBN 1 876473 24 X AUD \$24.95

David Jones is arguably Australia's most prolific botanical author. He has an encyclopedic knowledge of plants, and is an expert on Australian plants, with a special interest in orchids, palms, ferns and cycads. David has authored or co-authored numerous quality texts, which have become benchmarks in their field.

This colourful field guide is a joint effort, written with his wife, Barbara. It does not profess to be a complete treatment of the orchids of southern Australia, but it does cover numerous common and scarce species that naturally occur within the southern half of Australia. 268 individual taxa are covered, with high quality colour photographs complementing the informative text. In some instances, more than one photo is depicted. Many are close-up images, showing the diagnostic features of the bloom, yet there are many delightful shots of flowering plants in the wild.

Species are laid out alphabetically, with common names applied in every instance (even though some of these are obscure!), and a page devoted to each entry. There is a description of the plant, plus notes on flowering period, distribution, habitat and similar species. Both epiphytes and terrestrials are covered, with an emphasis on the ground orchids. Some of the more popular genera that are treated are *Bulbophyllum* (7 species), *Caladenia* (43 species), *Corybas* (8 species), *Dendrobium* (9 species), *Diuris* (20 species), *Dockrillia* (10 species), *Prasophyllum* (14 species), *Pterostylis* (50 species), *Sarcocylus* (8 species) and *Thelymitra* (22 species). There are also new photographs of our two underground orchids, *Rhizanthella gardneri* and *Rhizanthella slateri*, which are rarely seen in print.

As you would expect, the nomenclature used is accurate and up-to-date. Thankfully, I only found one error, which appears to be a pre-publication mix-up. On page 127, the text and description is of *Dockrillia mortii*, yet the photograph is of *Dockrillia bowmanii*. (*Dockrillia mortii* is the accepted name for the orchid previously known as *Dendrobium tenuissimum*.) *Dockrillia bowmanii* is correctly treated on page 122.

This is an excellent, compact field guide, which would easily fit into the clove box or backpack, for days spent in the bush. It highlights and showcases the vast diversity of Australia's orchid flora. If it doesn't direct you to the exact species you are studying, it certainly will help you find at least the genus and related species. I thoroughly recommend this quality, inexpensive book to naturalists, bushwalkers and all who are interested in Australian orchids.

David P. Banks

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| August 3-5     | Gosford Orchid Spectacular                     |
| August 17-19   | St Ives Orchid Fair                            |
| August 17-19   | Melbourne Orchid Spectacular                   |
| September 5-9  | Mt Penang Floral Festival                      |
| October 7      | Orchids By The Sea – Port Macquarie            |
| October 12-14  | Sydney International Orchid Fair – Castle Hill |
| November 3-4   | Tweed Orchid Fair                              |

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# NEW ORCHID HYBRIDS

## SEPTEMBER/OCTOBER/NOVEMBER 2000 REGISTRATIONS

Supplied by the Royal Horticultural Society as International Registration Authority for Orchid Hybrids

| NAME   | PARENTAGE  | REGISTERED BY   |
|--|--|---|
| <b>AERIDOVA</b><br>New Dawn  | <i>Aéridv. Mundy</i> x <i>V. Miss Joaquim</i>  | (O/U = Originator unknown)                                  |
| <b>*AGASEPALUM</b> (Asp.)<br>Blue Butterfly  | <i>Zsppm. labiosum</i> x <i>Agn. cyanea</i>  | W.Morris  |
| <b>ALANGREATWOODDARA</b><br>Kiwi Gold  | <i>Z. Kiwi Land</i> x <i>Agwa. Alan</i>  | Exotic Orchids  |
| <b>ALICEARA</b><br>Victor Guerra Lorenzen  | <i>Missa. Charles M. Fitch</i> x <i>Onc. Thilo</i>   | R. Tucker   |
| <b>ASCOCENDA</b><br>Dreamcatcher<br>Newberry Blue Skies<br>Super Cooper            | <i>Ascdia. Bangkokian</i> Gold x <i>Ascdia. Guo Chia Long</i><br><i>Ascdia. Pudtan</i> x <i>V. Manuel Torres</i><br><i>Ascdia. Fuchs</i> Gold x <i>V. tessellata</i> | I.Burzlaff  |
| <b>BALDWINARA</b><br>Ursula  | <i>Bdwna. Block Party</i> x <i>Odcdm. Ryoko Miyamoto</i>   | H.Rohrl   |
| <b>BAPTICIDIUM</b><br>Tsiku Glowworm   | <i>Onc. Hamana Elin</i> x <i>Bapt. echinata</i>  | Tsiku Taiwan Orch.  |
| <b>BEALLARA</b><br>Samba Splendor  | <i>Blira. Tropic Splendor</i> x <i>Milt. spectabilis</i>   | R.Agnes/Aranda Orquideas)                                   |
| <b>BIFRENVARIA</b><br>Trish Rohrl  | <i>Blf. vitellina</i> † x <i>Blf. atropurpurea</i>   | H.Rohrl   |
| <b>BISHOPARA</b><br>Youan Me Tnt   | <i>Ctna. Why Not</i> x <i>Sc. Lana Coryell</i>   | Taylor Made Orch.(L. Topp)                                  |
| <b>BRASSIA</b><br>Nectar   | <i>Brs. bidens</i> † x <i>Brs. lanceana</i>  | N.& E.Miller(Cape Oasis)                                    |
| <b>BRASSIDIUM</b><br>Tzeng-Wen Spot  | <i>Onc. Makalii</i> x <i>Brs. Rex</i>  | Wong Ching-Tien   |
| <b>BRASSOCATTLEYA</b><br>Deborah Smith<br>Memoria Gerald Lawless<br>Tsiku Magnolia | <i>C. Lucille Small</i> x <i>Bc. Mount Hood</i><br><i>C. Picturata</i> x <i>B. digbyana</i><br><i>Bc. Cynthia</i> x <i>C. walkneriana</i>                            | Carter & Holmes<br>G.Lawless(Lenette)<br>Tsiku Taiwan Orch. |
| <b>BRASSOLAEIA</b><br>Golden Glory   | <i>Blf. Richard Mueller</i> x <i>L. tenebrosa</i>  | H & R   |
| <b>BRASSOLAEIJCATTLEYA</b><br>Blythwood<br>Bon Sweet                               | <i>Blc. Emily Simmons</i> x <i>Blc. Kure Beach</i><br><i>Blc. Memoria Helen Brown</i> x <i>Lc. Dibonetta</i>   | Carter & Holmes<br>M.Koyama                                 |

| NAME                                   | PARENTAGE  | REGISTERED BY                             |
|--|--|---|
| <b>BRASSOLAEIJCATTLEYA</b> (continued) |  |   |
| Brazilian Little Rainbow               | <i>C. Dubiosa</i> x <i>Blc. Dan O'Neil</i>                     | Tajima Orch.                              |
| Candelario Garcia                      | <i>Blc. Goldenzelle</i> x <i>Blc. Oconee</i>                   | M.Garcia(Stewart Orch.)                   |
| Catherine Garcia                       | <i>Blc. Enid Moore</i> x <i>Lc. Stirling Point</i>             | M.Garcia(Stewart Orch.)                   |
| Cedar Springs                          | <i>Blc. Catechee</i> x <i>Bc. Beth Eden</i>                    | Carter & Holmes                           |
| Crispinet                              | <i>Lc. Dibonetta</i> x <i>Blc. Memoria Crispin Rosales</i>     | M.Koyama                                  |
| Dal's Glamour                          | <i>Blc. Ballardian</i> x <i>C. Horace</i>                      | R.Greinke(D.& B.Littman)                  |
| Dal's Grace                            | <i>C. Horace</i> x <i>Blc. George King</i>                     | R.Greinke(D.& B.Littman)                  |
| Donald's Passion                       | <i>Blc. Memoria Ralph Placentia</i> x <i>Blc. Black Mesa</i>   | F.Koriyama(D.Herman)                      |
| Duh's Charm                            | <i>Blc. Manteo</i> x <i>Blc. Orglade's Charm</i>               | Shao Jye Duh                              |
| Duh's Color Imp                        | <i>Blc. Duh's Sweet</i> x <i>Blc. Yellow Imp</i>               | Shao Jye Duh                              |
| Duh's Kitten                           | <i>Lc. Chiou-Jye Chen</i> x <i>Blc. Duh's Ruby</i>             | Shao Jye Duh                              |
| Duh's Magic                            | <i>Blc. Sunset Bay</i> x <i>Blc. Dinh Thuy Yen</i>             | Shao Jye Duh                              |
| Duh's Orange                           | <i>Blc. Manteo</i> x <i>Blc. Duh's Ruby</i>                    | Shao Jye Duh                              |
| Duh's Rose                             | <i>Blc. Royal Emperor</i> x <i>Blc. Sunset Sails</i>           | Shao Jye Duh                              |
| Duh's Smile                            | <i>Blc. Duh's Sweet</i> x <i>Blc. Duh's Ruby</i>               | Shao Jye Duh                              |
| Ellen Kobayashi                        | <i>C. Hawaiian Wedding Song</i> x <i>Blc. Meditation</i>       | R.Kobayashi                               |
| Fatari                                 | <i>Blc. Kuwale Flare</i> x <i>C. walkneriana</i>               | (Akatsuka Orch.Gdns.)                     |
| George's Pride                         | <i>Blc. Dark Zuki</i> x <i>Blc. Norman's Bay</i>               | C.Kumano(Orchid Center)                   |
| Haleahi Sunbow                         | <i>Bc. Malikai</i> x <i>Blc. Golden Tang</i>                   | Tajima Orch.(G.Suzuki)                    |
| Haur Jiu                               | <i>Lc. Orglade's Grand</i> x <i>Blc. Chian-Tzy Lass</i>        | Hawaiian Fl.Nurs.                         |
| Hawaiian Trader                        | <i>Blc. Hawaiian Queen</i> x <i>Blc. Dream Trader</i>          | Ching Ann<br>J.& M.Godbeer<br>(B.Maident) |
| Herb's Legacy                          | <i>Blc. Gorgous Gold</i> x <i>Lc. Herb's Palette</i>           | Orchid Zone                               |
| Hickory Tavern                         | <i>Lc. Palolo Bronze</i> x <i>Blc. Oconee</i>                  | Carter & Holmes                           |
| Kuwale Jewel                           | <i>Blc. Kuwale Gem</i> x <i>Blc. Toshie Aoki</i>               | C.Kumano(Orchid Center)                   |
| Mary Ragan                             | <i>Blc. Orglade's Happy Face</i> x <i>Blc. Makaha Gold</i>     | Knull-Smith                               |
| Memoria Arie Heerema                   | <i>Lc. Culminant</i> x <i>Blc. Memoria Grant Eichler</i>       | Carter & Holmes                           |
| Memoria George Suzuki                  | <i>Blc. Faye Miyamoto</i> x <i>Blc. Consuelo Kellogg</i>       | Tajima Orch.(G.Suzuki)                    |
| Memoria Mickey Boatwright              | <i>Blc. Catechee</i> x <i>Blc. Oconee</i>                      | P.Pae(Tropic 1)                           |
| My Friend Kirihara                     | <i>Blc. Haw Yuan Moon</i> x <i>Blc. Ern Kobayashi</i>          | Tajima Orch.(G.Suzuki)                    |
| Naples Gold                            | <i>Lc. Sunwick</i> x <i>Bc. Waikiki Gold</i>                   | A.Kiehm                                   |
| Night Moves                            | <i>L. anceps</i> x <i>Bc. Pink Debutante</i>                   | Cal-Orchid                                |
| Nipples Gold                           | <i>C. Orglade's Cherry Ripple</i> x <i>Blc. Orange Nuggett</i> | R.Sobino                                  |
| Nifia Dorada                           | <i>C. Iodigessii</i> x <i>Blc. Oconee</i>                      | B.Garrison                                |
| Purple Belle                           | <i>Blc. Maui Magic</i> x <i>Blc. Memoria Crispin Rosales</i>   | Exotic Orchids                            |
| Purple Magic                           | <i>Blc. Cadmilum Light</i> x <i>Blc. Golden Bay</i>            | R.Agnes/Aranda Orquideas)                 |
| Samba Belle                            | <i>Blc. Ranger Six</i> x <i>C. Crown Princess Michiko</i>      | Tajima Orch.(G.Suzuki)                    |
| Snow Ball                              | <i>Lc. Memoria Princina</i> x <i>Blc. Malworth</i>             | J.Grezaffi                                |
| Sweetie Number Two                     | <i>Blc. Chunyeah</i> x <i>Blc. Shi Kang Dragon</i>             | Ching Hua                                 |
| Taiyoung                               | <i>Blc. Toshie Aoki</i> x <i>Lc. Edgard Van Belle</i>          | Tajima Orch.                              |
| Tajima's Satisfaction                  | <i>C. Hamana Betty</i> x <i>Blc. Memoria Helen Brown</i>       | Y.Takahashi                               |
| Tokyo Betty                            | <i>Bc. Buttercup</i> x <i>Blc. Gladys Lines</i>                | F.Koriyama(O/U)                           |
| Tokyo Dawn                             | <i>Blc. Love Sound</i> x <i>Lc. Janet</i>                      | Tsiku Taiwan Orch.                        |
| Tsiku Pansy                            |  |   |
| <b>BULBOPHYLLUM</b>                    |  |   |
| Ray Gabaldon                           | <i>Bulb. burfordiense</i> † x <i>Bulb. lobbii</i>              | B.Thoms                                   |
| <b>CALANTHE</b><br>Elegance            | <i>Cal. Kyoto</i> x <i>Cal. Brandywine</i>                     | D.Boucher                                 |
| <b>CATASETUM</b>                       |  |   |
| Altamir Soares                         | <i>Ctsm. spitzii</i> x <i>Ctsm. expansum</i>                   | E.Perazoli                                |
| Ana Marta Soares                       | <i>Ctsm. schmidtianum</i> x <i>Ctsm. expansum</i>              | A.Soaers                                  |
| Barbara Leavitt                        | <i>Ctsm. fimbriatum</i> x <i>Ctsm. dodsonianum</i>             | B.Leavitt(W.Ramsey)                       |
| Fernando Soares                        | <i>Ctsm. lanciferum</i> † x <i>Ctsm. expansum</i>              | Avaro Pereira                             |
| Maria Mercedes Soares                  | <i>Ctsm. lanciferum</i> x <i>Ctsm. João Stivali</i>            | A.Soaers                                  |
| Rocky Clough                           | <i>Ctsm. fimbriatum</i> x <i>Ctsm. Sodirol</i> §               | G.Carr(O/U)                               |
| Waitair António Soares                 | <i>Ctsm. lanciferum</i> x <i>Ctsm. vinaceum</i>                | Avaro Pereira                             |

| NAME                   | PARENTAGE                                  | REGISTERED BY             | NAME                          | PARENTAGE                                       | REGISTERED BY              |
|------------------------|--|---------------------------|-------------------------------|---|----------------------------|
| <b>CATTLEYA</b>        |  |                           | <i>DENDROBium (continued)</i> |   |                            |
| Akala Lili Lili        | C. maxima x C. Lodiaca                     | R.Wolaver(J.M.Ward)       | China Girl                    | Den. Hubertine x Den. Mini Diamond              | Law Moi Hwa                |
| Jerry Lawless          | C. Small Packages x C. Chocolate Drop      | G.Lawless(Lenette)        | Concert Ring                  | Den. Jaquelyn Concert x Den. Mount Kelly Beauty | Law Moi Hwa                |
| Mark Jones             | C. Claudebec x C. Fascelle                 | Krull-Smith               | Egret                         | Den. Bolga x Den. Red River                     | N.Roper                    |
| Saint Katharine Drexel | C. David Bishop x C. Summer Ridge          | G.Lawless(Lenette)        | Evelyn Angus                  | Den. Singapore Lady x Den. D'Bush Pansy         | Harold Johnson             |
| Samba Crush            | C. warrior x C. aelandiae                  | R.Agnes(Aranda Orquideas) | Finlay                        | Den. Lorikeet x Den. Rutherford Blushing Bride  | P.Grech(Down Under N.O.)   |
|                        |  |                           | Flighly                       | Den. bowmannii x Den. kingianum                 | W.Fisher                   |
| <b>CATTLEYTONIA</b>    |  |                           | Flute                         | Den. Angelene x Den. speciosum                  | N.Roper                    |
| Dull's Classic         | Cina. Maui Maid x C. Orglade's Classic     | Shao Jye Duh              | Gerry Vasper                  | Den. stratoides x Den. helix                    | R.Perreira                 |
| Miva Corona            | C. Candace Beth Shaifer x Cina. Keith Roth | Michel Vacherot           | Gusto                         | Den. ted Davis x Den. bigbium                   | W.Savage(O/U)              |
| <b>CIRRHOPETALUM</b>   |  |                           | Haleahi Aroma                 | Den. Windward Rose x Den. Roy                   | Hawaiian FI.Nurs.          |
| Melting Point          | Cirr. Doris Dukes x Cirr. longissimum      | B.Thoms                   | Haleahi Blues                 | Den. Udom Blue Angel x Den. Rayanne Nakamoto    | Hawaiian FI.Nurs.          |
|                        |  |                           | Haleahi Gingerbread           | Den. David Copperfield x Den. Klaua Krimson     | Hawaiian FI.Nurs.          |
| <b>CIRRHOPHYLLUM</b>   |  |                           | Haleahi Haiku                 | Den. Nicole Camelot x Den. Eva's Fiesta         | Hawaiian FI.Nurs.          |
| Goody Goody            | Cirr. guftulatum x Bulb. dearei            | B.Thoms                   | Haleahi Heartrob              | Den. Velvet Melody x Den. Judi Camero           | Hawaiian FI.Nurs.          |
|                        |  |                           | Haleahi Lipstick              | Den. Hawaiian Oracle x Den. Hawaiian Heart      | Hawaiian FI.Nurs.          |
| <b>CYMBIDIUM</b>       |  |                           | Haleahi Pearly                | Den. Snow Eli x Den. May Queen                  | Hawaiian FI.Nurs.          |
| Belle Houque Point     | Cym. Thurso x Cym. Beauport                | E.Young O.F.              | Haleahi Pink Lace             | Den. Mary Stripes x Den. Baby Dolphin           | Hawaiian FI.Nurs.          |
| Cinnamon Wall          | Cym. Wallacia x Cym. Warona                | G.Giles                   | Haleahi Rays                  | Den. Anching Lubag x Den. Mary Stripes          | Hawaiian FI.Nurs.          |
| Dawn Blush             | Cym. Stanley Fouraker x Cym. Pink Dawn     | Floricultura(A.Easton)    | Haleahi Sandstone             | Den. Hawaiian Oracle x Den. Palolo Sunshine     | Hawaiian FI.Nurs.          |
| Donnybrook             | Cym. Brook Street x Cym. devonianum        | P.Galpin(A.Easton)        | Haleahi Twist                 | Den. Autumn Twist x Den. Lea Takafuji           | Hawaiian FI.Nurs.          |
| Dream Therapy          | Cym. Pepper Bisque x Cym. Dream Therapy    | Floricultura(A.Easton)    | Jarah                         | Den. Bolga x Den. Jeenga                        | N.Roper                    |
| Dream Therapy          | Cym. Sleeping Dawn x Cym. Sleeping Dream   | Floricultura(A.Easton)    | Jonathan's Surprise           | Den. gracilicaule x Den. Bardo Rose             | W.Fisher                   |
| Golden Courtier        | Cym. Valley Courier x Cym. Wallara         | Floricultura(A.Easton)    | Keldon                        | Den. Jonathan's Glory x Den. Gulginni           | P.Blandford(T.EIgood)      |
| Green Zenith           | Cym. Valley Zenith x Cym. Vanguard         | Floricultura(A.Easton)    | Lim Sue Ming                  | Den. Glamour x Den. Bicentennial Blush          | P.Grech(W.Skillcorn)       |
| Gunslinger             | Cym. Bulbarrow x Cym. Mighty Mouse         | Orchids Royale            | Little Sweetheart             | Den. Reha Zehran x Den. Kivoshii Izumi          | S.Y.Alsagoff               |
| Jazz Festival          | Cym. Kizi x Cym. Mighty Mouse              | Orchids Royale            | Loh Kia Leng                  | Den. superbum x Den. rhodopterygium             | R.B.Cole                   |
| Krista's Gold          | Cym. Royal Magic x Cym. Tracey Reddaway    | Floricultura(N.Porter)    | Mary Indermill                | Den. Majestic x Den. Kwa Siew Tee               | Koh Keng Hoe               |
| La Rosiere             | Cym. Royal Fare x Cym. Pharaoh's Gold      | S.Barrie(G.Giles)         | Memoria Frank Slattery        | Den. Julie Than Wong x Den. Jaquelyn Thomas     | Harold Johnson             |
| Little Sarah           | Cym. Red Beauty x Cym. Beauport            | E.Young O.F.              | Millennium Gold               | Den. New Moon x Den. Utopia                     | R.Morris                   |
| Lunar Flame            | Cym. Sweetheart x Cym. Sarah Jean          | Paradisla Nurs.           | Moonyra Baharuddin            | Den. White Fairy x Den. fredericksianum         | Woon Leng Nurs.            |
| Lunar Wall             | Cym. Lunara x Cym. Khan Flame              | G.Giles                   | Olive Green                   | Den. Kasem White x Den. Kamiya's Secret         | Asiatic Green              |
| Max                    | Cym. Gladys Whitesell x Cym. Wallara       | G.Giles                   | Pink Champagne                | Den. Barana Green x Den. Anching Lubag          | Law Moi Hwa                |
| Opal Hill              | Cym. Garden City x Cym. Pink Hill          | R.Tucker                  | Siam's Gift                   | Den. Aaron Law x Den. Mount Kelly Beauty        | Law Moi Hwa                |
| Pepper Bisque          | Cym. Red Beauty x Cym. Vieux Rose          | R.Dickinson               | Snow Mist                     | Den. Bobby-Imelda x Den. Jlad Gold              | Hawaiian FI.Nurs.          |
| Pepper Bisque          | Cym. Pure Bisque x Cym. Claude Pepper      | McBean's                  | Sungwaru Onimsin              | Den. White Tower x Den. White Wine              | (Udom Orch.)               |
| Pure Glory             | Cym. Golden Cascade x Cym. Glory Daze      | Floricultura(A.Easton)    | Ted Davis                     | Den. phalaenopsis x Den. Kuranda Classic        | Kamaaina                   |
| Saucy Etta             | Cym. Chironita x Cym. Etta Barlow          | Floricultura(A.Easton)    | Tengah Gold                   | Den. Mario Cuomo x Den. Thailand                | J.Grezaiffi                |
| Sylvan Candy           | Cym. Cotton Candy x Cym. Sylvania          | Floricultura(A.Easton)    | Tengah Green                  | Den. Theodore Takiguchi x Den. ducuphum         | W.Savage(O/U)              |
| Totally Taboo          | Cym. Arts x Cym. Mighty Mouse              | Orchids Royale            | Tengah Rose                   | Den. Sunburst x Den. Anching Lubag              | Law Moi Hwa                |
| Tracey Honey           | Cym. Baltic Honey x Cym. Tracey Reddaway   | Floricultura              | Tengah Sungold                | Den. Alice Spalding x Den. Anching Lubag        | Law Moi Hwa                |
| Yellow Cadillac        | Cym. Camaro x Cym. Balcaraga               | Floricultura(A.Easton)    | Tsiku Jesulin                 | Den. Gentling Rose x Den. Mount Kelly Beauty    | Law Moi Hwa                |
| <b>DEGARMOARA</b>      |  |                           | Tsiku Statice                 | Den. Brown Derby x Den. Anching Lubag           | Law Moi Hwa                |
| Kalapais               | Missa. Kalaepaa x Odm. Mount Tamapais      | H.Rohrl                   | Walnut Valley Wine            | Den. Blue Twinkle x Den. johannis               | Tsiku Taiwan Orch.         |
| Steve Weeks            | Missa. Royal Robe x Odm. bictoriense       | Everglades                | Wee Wee                       | Den. Pixie Princess x Den. canalculatum         | Tsiku Taiwan Orch.         |
|                        |  |                           |                               | Den. Gordon Kong x Den. Mitroy                  | M.C.Thompson(O/U)          |
|                        |  |                           |                               | Den. Wee Worder x Den. gouldii                  | Hawaiian FI.Nurs.(K.Kamya) |
| <b>DENDROBium</b>      |  |                           | <b>DEVEREUXARA</b>            |   |                            |
| Aisha                  | Den. Oyozi's Little Kiss x Den. speculife  | R.Perreira                | Akatsuka Bells                | Dra. Hawaiian Delight x Phal. Brother Victory   | Akatsuka Orch.Co.          |
| Amos and Sarahette     | Den. Marion Lonne x Den. Khunying Boonuen  | Harold Johnson            | Akatsuka Destiny              | Dra. Hawaiian Delight x Phal. Deventeriana      | Akatsuka Orch.Co.          |
| Angel Star             | Den. Meala x Den. Beach Girl               | Law Moi Hwa               | Akatsuka Light                | Dra. Hawaiian Delight x Phal. stuartiana        | Akatsuka Orch.Co.          |
| Baharuddin Musa        | Den. Fuchs Blue Twist x Den. taurinum      | Asiatic Green             |                               |   |                            |
| Betty's Bouquet        | Den. Pinky x Den. bigbium                  | B.Thoms                   | <b>DIALMEL/OCATTFLEYA</b>     |   |                            |
| Carolyn Yoshida        | Den. Kasem Gold x Den. D'Bush Pansy        | Harold Johnson            | Exotic Pixie                  | Lc. Janet x Dial. Snowflake                     | Exotic Orchids             |
| Cherway Hayley         | Den. Karie Wakida x Den. semifusum         | A.Sewell                  |                               |   |                            |
| Cherway Kiley          | Den. Henry Ito x Den. Silkworm             | A.Sewell(O/U)             | <b>DORTAENOPSIS</b>           |   |                            |
| Cherway Robley         | Den. Raspberry Delight x Den. canalculatum | A.Sewell(O/U)             | Akatsuka Charm                | Dips. City Girl x Phal. Fairy Tales             | Akatsuka Orch.Co.          |
|                        |  |                           | Akatsuka Cupid                | Phal. Cassandra x Dips. Ton Jy Pecan            | Akatsuka Orch.Co.          |



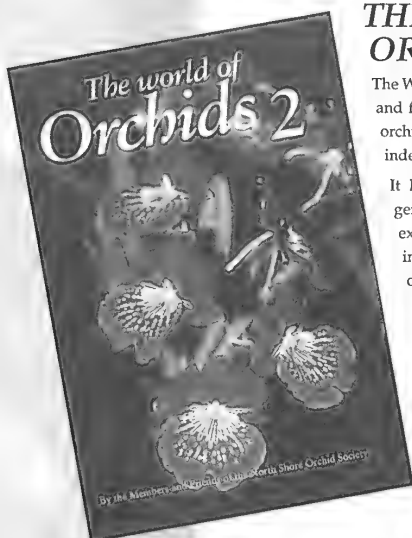
| NAME                            | PARENTAGE   | REGISTERED BY | NAME                         | PARENTAGE   | REGISTERED BY                      |
|---------------------------------|---|---------------|------------------------------|---|------------------------------------|
| <b>DORTAENOPSIS (continued)</b> |   |               | <b>*HOLCOCENTRUM (Hctm.)</b> |   |                                    |
| Akatsuka Neon Rose              | Phal. Neon Stripes x Dtps. King Shiang's Rose             |               | Asuka                        | ‡Holic. <i>flavescens</i> † x Asctm. <i>ampullaceum</i> | I.Mochizuki                        |
| Akatsuka Pink Rose              | Phal. Hawaiian Stripe x Dtps. King Shiang's Rose          |               | KAGAWARA                     |   |                                    |
| Akatsuka Sunshine               | Phal. Hausermann's Templar x Dtps. King Shiang's Rose     |               | Serdang                      | Ascda. Wangsa Gold x Ren. <i>storiei</i>                | Tan Chin Heong                     |
| Black Prince                    | Phal. Ever-spring Light x Dtps. Ever-spring Pearl         |               | LAELIOCATTLEYA               |   |                                    |
| Ching Ann Kide                  | Dtps. King Shiang's Kide x Dtps. King Shiang's Rose       |               | Amatecor en Galicia          | Lc. Royal Emperor x Lc. Bonanza                         | R.Sobino                           |
| Ching Her Pearl                 | Dtps. Ever-spring Pearl x Phal. Ching Her Buddha          |               | Ana Paola                    | Lc. Julinha x C. <i>armethystoglossa</i>                | R.Agnes(Aranda Orquideas)          |
| Cosmo-Bells                     | Dtps. Pink Bells x Phal. <i>equestris</i>                 |               | Bella Garcia                 | Lc. Persian Glory x Lc. Casitas Spring                  | M.Garcia(Stewart Orch.)            |
| Donsan Festival                 | Dtps. Hsinying Festival x Phal. Donsan Rose               |               | Bonbeat                      | Lc. Drumbeat x Lc. Bonnet                               | M.Koyama                           |
| Dorothy and Evelyn              | Phal. Charleston Frost x Dtps. Achy Breaky Heart          |               | Brazilian Blaze              | Lc. Yoshico Suzuki x Lc. Edgar Van Belle                | Tajima Orch.(G.Suzuki)             |
| Formosa Park                    | Phal. Heinying Park x Dtps. King Shiang's Coral           |               | Chlor                        | C. <i>forbesii</i> x Lc. Chicanery                      | H.Rohrl                            |
| Hsinying Leopard                | Dtps. Leopard Prince x Phal. Ho's French Fantasia         |               | Cosmo-Invin                  | Lc. Just Friends x Lc. <i>anceps</i>                    | Kokusai                            |
| I-Hsin Diana                    | Dtps. Yu Pin Coral x Dtps. Minho Princess                 |               | Fenland Fairy                | Lc. Fenland Springtime x C. <i>araguaiensis</i>         | K.& B.Beale                        |
| I-Hsin Egg Roll                 | Phal. Fortune Buddha x Dtps. Leopard Prince               |               | Hawaiian Ice                 | Lc. Love Knot x C. Lavender Ice                         | H & R                              |
| I-Hsin Garden                   | Phal. Ming-Hsing Cinderella x Dtps. Ming-Hsing Apple Land |               | Herb's Palette               | Lc. Amber Glow x Lc. Harold Carlson                     | Orchid Zone                        |
| I-Hsin Gem                      | Phal. Hwaling Redjewel x Dtps. Taisuco Firebird           |               | Isla Encantada               | Lc. Shelle Compton x Lc. Anita Marie                    | R.Sobino                           |
| I-Hsin Golden Prince            | Phal. Golden Sun x Dtps. Leopard Prince                   |               | Mariko Takamatsu             | Lc. Mini Purple x L. <i>purpurata</i>                   | T.Takamatsu                        |
| I-Hsin Honey Moon               | Dtps. Minho Princess x Dtps. Taisuco Honey                |               | Mari's Magic                 | Lc. Mari's Song x Lc. Tokyo Magic                       | H & R                              |
| I-Hsin Lemon                    | Phal. I-Hsin Peacock x Dtps. Leopard Prince               |               | Mini Lute                    | Lc. Mini Purple x C. <i>luteola</i>                     | C.R.Hall(K.& B.Beale)              |
| I-Hsin Maple                    | Dtps. Minho Venus x Phal. Hwaling Redjewel                |               | Newberry Splendor            | Lc. Starting Point x Lc. Persepolis                     | Carter & Holmes                    |
| I-Hsin Paprika                  | Dtps. Ching-Hsing Cherry x Dtps. Taisuco Firebird         |               | Purple Cascade               | C. Interglossa x Lc. Tokyo Magic                        | Kendolie Agr. (Hung Chuan Chih)    |
| I-Hsin Red Pecan                | Dtps. Taida Pecan x Dtps. Taisuco Red                     |               | Redbeat                      | Lc. Red Express x Lc. Drumbeat                          | M.Koyama                           |
| I-Hsin Red Rose                 | Phal. Salu Spot x Dtps. Yu Pin Coral                      |               | Robert Pascoe                | C. Princess Bells x Lc. Luther Burbank                  | R.Matthews                         |
| I-Hsin Sakura                   | Dtps. Minho Venus x Dtps. Taisuco Firebird                |               | Samba Eclipse                | C. Mother Dominican x Lc. Persepolis                    | R.Agnes(Aranda Orquideas)          |
| I-Hsin Sesame                   | Phal. Ching Her Buddha x Dtps. Leopard Prince             |               | Tsiku Camellia               | Lc. Angel Love x Lc. Janet                              | Tsiku Taiwan Orch.                 |
| I-Hsin Spring                   | Dtps. Minho Princess x Dtps. Leopard Prince               |               | Tsiku Cosmos                 | Lc. Man's Song x Lc. Janet                              | Tsiku Taiwan Orch.                 |
| I-Hsin Sundae                   | Phal. I-Hsin Peacock x Dtps. Modern Rose                  |               | Tsiku Hibiscus               | Lc. Mini Purple x Lc. Aloha Case                        | Tsiku Taiwan Orch.                 |
| Ming-Hsing Apple Land           | Dtps. Taisuco Appleline x Dtps. Ming-Hsing Happy Land     |               | Tsiku Hollyhock              | Lc. Puppy Love x Lc. Janet                              | Tsiku Taiwan Orch.                 |
| Ming-Hsing Happy Land           | Dtps. Chin-Hsing Cherry x Dtps. Happy Valentine           |               | LUISANDA                     |   |                                    |
| Miva Sinus                      | Dtps. Marta De Rivilla x Phal. Golden Buddha              |               | Anthony Koo                  | V. Josephine van Biero x Lsa. <i>thailandica</i>        | Harold Johnson<br>(Suphachadiwong) |
| Pisgah Birdesmaid               | Phal. Taisuco Swan x Dtps. Pisgah Child                   |               | LYCASTE                      |   |                                    |
| Plantation Anticipation         | Phal. Massachusetts Stripe x Dtps. Matou Beauty           |               | Absolutely Stunning          | Lyc. Always x Lyc. Malibu Canyon                        | Orchid Zone                        |
| Taida Golden Cup                | Phal. Rheingold x Dtps. Sogo Manager                      |               | Bill Austin                  | Lyc. Sunrise x Lyc. Always                              | Sunset                             |
| Taisuco Alice                   | Phal. Heinton Rose x Dtps. Sinica Peeress                 |               | Charming Sister              | Lyc. Yoko's Sister x Lyc. Memoria Bill Congleton        | Y.Suzuki                           |
| Taisuco Blush                   | Dtps. Ho's Happy Auckland x Phal. Taisuco Carol           |               | Chestnut                     | Lyc. <i>dowiana</i> x Lyc. <i>powellii</i>              | Y.Suzuki                           |
| Taisuco Stream                  | Phal. Taisuco Carol x Dtps. Minho Princess                |               | Isabella                     | Lyc. Koolena x Lyc. Jonapp                              | T.Goshima(K.Murakami)              |
| Taisuco Vivien                  | Phal. Taisuco Fireball x Dtps. Taisuco Candystripe        |               | Mars                         | Lyc. Hamana Wine x Lyc. Sunray                          | T.Goshima                          |
| Yann Mei King                   | Dtps. Liu Neng-Dow x Phal. Ever-spring King               |               | Mercury                      | Lyc. Koolena x Lyc. Chita Melody                        | T.Goshima                          |
| DRACULA                         |   |               | Mrs Eiko                     | Lyc. Shoalhaven x Lyc. Jonapp                           | T.Goshima(K.Murakami)              |
| Uschi                           | Drac. Quasimodo x Drac. <i>robleodorum</i>                |               | Peter                        | Lyc. Taurus x Lyc. Balliae                              | Y.Suzuki                           |
| EPILAELIA                       |   |               | Wössner Feuer                | Lyc. Auburn x Lyc. Wyld Enchantress                     | F.Glanz                            |
| Heart of Darkness               | L. <i>tenebrosa</i> x <i>Epi. cordigerum</i>              |               | MACLELLANARA                 |   |                                    |
| Riverboat Poet                  | Epi. Poet's Wine x Epi. Standard Setter                   |               | Jakob's Song                 | Mchn. Pagan Lovesong x Odcdm. Jakob Röhr                | H.Rohrl                            |
| EPILAELOCATTLEYA                |   |               | MASDEVALLIA                  |   |                                    |
| Haiku Twinkle                   | Lc. Trick or Treat x <i>Epi. ilense</i>                   |               | Ada's Delight                | Masd. Mary Steel x Masd. Kimballiana                    | A.Kelly(C.Halls)                   |
| GONGORA                         |   |               | Pat Allwood                  | Masd. <i>davisi</i> x Masd. <i>mendozae</i>             | A.Barry                            |
| Gagradon                        | Gga. <i>galeata</i> x Gga. <i>grossa</i>                  |               | MILTONIA                     |   |                                    |
| Galardon                        | Gga. <i>armeniaca</i> x Gga. <i>galeata</i>               |               | Adelante                     | Milit. Cast Moon x Milit. My Clown                      | H.Rohrl                            |
| GOODALEARA                      |   |               | Enzan Lady                   | Milit. <i>vestilaria</i> x Milit. Memoria Janet Rowand  | Mukoyama                           |
| Remembrance                     | Dgmra. Pluto x Wils. Palomar Peak                         |               |                              |   |                                    |

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|-----------------------|---|----------------------------|----------------------------------|---|--------------------|
| <b>ADONTODA</b>       |   |                            | <b>PAPHIOPEDILUM (continued)</b> |   |                    |
| Athualpa              | Oda, Helen Stead x Oda, Tzelal                    | H.Rohrl                    | Tokyo Mood                       | Paph. Magic Mood x Paph. Stefani Pitta              | Y.Takahashi        |
| First Blush           | Oda, Matanda x Oda, Ray Buckman                   | Sunset(R.Dugger)           | Tokyo Survival                   | Paph. World Survival x Paph. Tokyo Excellence       | Y.Takahashi        |
|                       |   |                            | Tokyo Wild Wind                  | Paph. Sparsholt x Paph. Parry Gripp                 | Y.Takahashi        |
| <b>ODONTOCIDIDIUM</b> |   |                            | Troda's                          | Paph. Shillanum x Paph. <i>rotschidlanum</i>        | E.Young O.F.       |
| Pisgah Autumn         | Odcadm. Tiger Night x Odcadm. Crowborough         | Owens Orchids              | Wössner Firemagic                | Paph. <i>charlesworthii</i> x Paph. Pacific Magic   | F.Glanz            |
| Yellow Dancer         | Odcadm. Ball Dancer x Odm. Stonehurst Yellow      | Everglades                 | Wössner Helene                   | Paph. <i>charlesworthii</i> x Paph. <i>helenae</i>  | F.Glanz            |
| <b>ODONTOGLOSSUM</b>  |   |                            | <b>PHALAENOPSIS</b>              |   |                    |
| Rocky Road            | Odm. <i>rossii</i> x Odm. Conero                  | Sunset(O/U)                | Akatsuka Baby                    | Phal. Little Richard x Phal. Cassandra              | Akatsuka Orch.Co.  |
| <b>ONCIDIUM</b>       |   |                            | Akatsuka Delight                 | Phal. Ho's Queen Elise x Phal. Double Delight       | Akatsuka Orch.Co.  |
| Jiubao Gold           | Onc. Shonan x Onc. Kaizumic Delight               | Ching Hua                  | Akatsuka Doll                    | Phal. Cassandra x Phal. Malibu Minute               | Akatsuka Orch.Co.  |
| Millennium Gold       | Onc. Nona x Onc. Vainmyre                         | Woon Leng Nurs.            | Akatsuka Elf                     | Phal. Brother Candyfuit x Phal. Cassandra           | Akatsuka Orch.Co.  |
| Nipples Swarm         | Onc. Lynn Garber x Onc. Golden Swarm              | A.Kiehm                    | Akatsuka Fire                    | Phal. Stripes and More x Phal. Chin Shang's Stripes | Akatsuka Orch.Co.  |
| Samba de Ouro         | Onc. Minni x Onc. <i>varicosum</i>                | R.Agnies/Aranda Orquideas  | Akatsuka Flora                   | Phal. Pailang's Queen x Phal. Terlyn Fujitake       | Akatsuka Orch.Co.  |
| Samba Flame           | Onc. Oriflamme x Onc. <i>crispum</i>              | Y.Takahashi                | Akatsuka Friend                  | Phal. Pixie Paradise x Phal. Zuma's Pixie           | Akatsuka Orch.Co.  |
| Tokyo Fantasy         | Onc. Boissense x Onc. Burgeffianum                | Tsiku Taiwan Orch.         | Akatsuka Glitter                 | Phal. Su-An Cricket x Phal. Brother Lawrence        | Akatsuka Orch.Co.  |
| Tsiku Marguerite      | Onc. Twinkle x Onc. <i>ornithorhynchum</i>        |                            | Akatsuka Glory                   | Phal. Dragon's Gold x Phal. <i>arnabilis</i>        | Akatsuka Orch.Co.  |
|                       |   |                            | Akatsuka Harmony                 | Phal. Paul Tatar x Phal. Dawn Song                  | Akatsuka Orch.Co.  |
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## THE WORLD OF ORCHIDS - 2

The World of Orchids - 2 has been written by members and friends of the North Shore Orchid Society about orchids grown in Sydney and its environs, and we are indebted to those people for their time and effort.

It has been produced to cover a large range of genera to help not only the novice, but also the experienced grower in their present fields of interest, and to tempt and encourage them to try other genera.

It should be pointed out that the methods of culture used by the authors are those which they themselves have found successful. Growers should try any changes to their own culture gradually and on a few plants first, as orchids respond differently under different conditions.

80 pages, colour and B&W.

was \$11.00 R.R.P. (incl. GST)  
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## GROWING PHALAENOPSIS AT HOME

James Neal

Jim Neal is always called upon to give his opinion when a Phalaenopsis is shown at an Orchid Society of NSW Ltd show or nominated for an award. This is because Jim has made a study of the genus Phalaenopsis in the Sydney area since being bitten by the Phalaenopsis bug at the 6th World Orchid Conference in Sydney in 1969.

This book is essential reading and reference for any person who grows, or is intending to grow, Phalaenopsis.

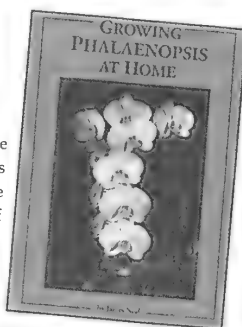
Jim, in a simple and easily understood style, explains and elaborates on light conditions, watering, temperatures, fertilisers, pests and diseases.

Explanations of the way Phalaenopsis are named and the implications of growing seedlings, illustrate some of the more difficult ideas for the layman to understand.

The colour photography illustrates beautifully the topics under discussion and the orchid names are supplied, where necessary, as a caption.

The illustrations drawn by Jim's son Jamie are pertinent and succinct and make the subject more easily understood.

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## WHAT ORCHID IS THAT?

Edited by Alec Pridgeon

The orchid is one of the most passionately cultivated flowers world-wide, and for centuries it has been a symbol for the exotic and mysterious in the human imagination. As the brilliant photographs in this book show, the shapes, hues and textures of many of these extraordinary flowers continue to produce a shock of wonder in the viewer.

This book will delight everyone, from the gardener with a casual interest in orchids, to the confirmed enthusiast. It takes in a wide spectrum of orchid genera and more than 1100 species common in cultivation, presented by an international team of experts.

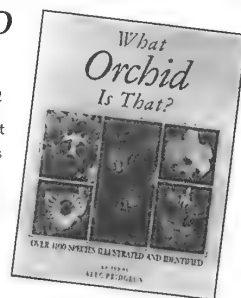
The first section, by the General Editor, Alec Pridgeon, introduces orchid habitat, distribution, names and classification, hybrids, pollination, how to grow orchids and control pests and diseases, and orchid conservation.

The alphabetical section, "Orchids A-Z", includes descriptions, names and synonyms, geographic distribution, notes on culture, and photographs drawn from collections around the world, showing the best-known species in cultivation.

Whether you are buying, growing or just looking, this is the ultimate guide to orchids.

304 pages, colour.

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## AUSTRALIAN TROPICAL ORCHIDS

Bill Lavarack and Bruce Gray

Compiled by two well known names in the Australian orchid world, this book is essentially a collection of 116 colour photographs depicting 109 tropical orchids, chosen by the authors as representative. There is a short introduction together with brief text complementing each photograph.

The text includes notes on distribution including a simple map, habitat types, an indication of size, flowering season, conservation status and many features of interest.

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## DENDROBIUM KINGIANUM: A Unique Australian Orchid

Peter B. Adams and Sheryl D. Lawson

This book takes an innovative approach to the appreciation of an orchid species and breaks new ground in species monographs. Many of the orchid books available today take a dry formula approach to their topic and frequently present in another form information that is already available. This monograph provides an easily-read, comprehensive treatment of the species encompassing the interests of research scientists, horticulturalists, breeders and hobbyists, including beginners.

Covers history, biology, breeding, taxonomy, hybridisation, and culture. Has sections on award-winning plants, and shows how to develop specialist and competitive collections. Includes a register of over 300 significant plants.

This well-produced book is essential reading for all enthusiasts of *d. kingianum* and will be a valuable addition to the orchidist's library. For many hobbyists, the highlight of the book will be the ability to identify the many wonderful forms of *d. kingianum* in their collection. For others it will determine the direction of further acquisitions. This book is not only a celebration of a unique orchid, it also illuminates the fascination that has led these authors to spend many thousands of obviously rewarding hours researching this delightful monograph.

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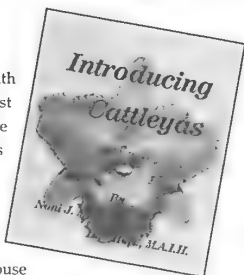


## INTRODUCING CATTLEYAS

Noni J. Mammatt

Noni Mammatt's fascination with the Cattleya Alliance, their most beautiful blooms and extensive range of colour combinations, has prompted Noni to share the results of her own trials in successfully growing and flowering all types of this most beautiful genus under shadehouse conditions in the city of Perth in Western Australia. She hopes that as a result of her writing some new growers, as well as the experienced growers of other orchid genera, may be encouraged to introduce the Cattleya Alliance into their collections.

24 pages, B&W.



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## LYCASTE ORCHIDS - Cultivation and Hybridisation

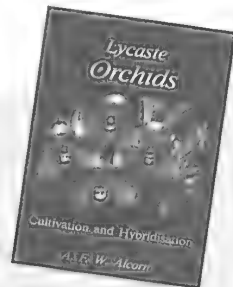
A.F.W. Alcorn

Lycaste orchids are easy to grow, and they produce flowers that range from the beautiful to the bizarre. No book previously has provided detailed cultural requirements of the Lycaste, and this book should fill that gap, and encourage new growers to take up the cultivation of this beautiful genus. A section on hybridising contains valuable information on inheritance and genetics that will benefit any hybridiser, not just the grower of Lycastes, as well as helpful hints on how to avoid pitfalls in your hybridising program.

Michael Hallett, a friend of Fred Alcorn for a number of years, co-wrote this book with Fred and has completed it posthumously. He has a background in genetics, research and botany, and a passion for plants, especially orchids.

237 pages, colour and B&W.

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## SARCOCHILUS ORCHIDS OF AUSTRALIA

Walter T. Upton

Sarcochilus Orchids of Australia is the first book to cover all aspects of species of the genus Sarcochilus. Compact plants of great floral beauty with ease of culture, they are mostly cool to cold growing, requiring limited space, and for these reasons are quickly becoming the orchid of the future.

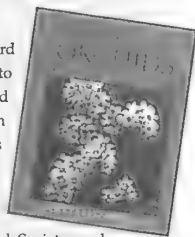
The book gives each individual species a separate entry, with information on its history, synonyms, distribution, habitat, cultivation and hybrids, along with a drawing showing the main parts of the plant and flower, plus a colour plate providing an easy means of identification.

Hybridising, including intergenerics, is dealt with in detail - most registered hybrids being accompanied by a colour plate. Other chapters include pollination, seed raising and cultural information for the home grower.

This is Walter T Upton's third book and is a companion to his very popular and informative Dendrobium Orchids of Australia. He is a past president of the Orchid Society of New South Wales and The Australasian Native Orchid Society, and has received many honours in Australia including the Australian Orchid Council's Award of Honour. He is a well-known hybridiser and judge of orchids, and is a learned and entertaining lecturer much in demand throughout the world.

119 pages, colour and B&W.

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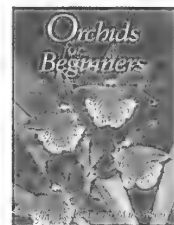


## ORCHIDS FOR BEGINNERS A Guide to Selection and Cultivation

Allison and Mark Webb

"Orchids for Beginners" is for those just starting out in orchids. It provides information about choosing orchids best suited to your conditions and how to grow them. There is advice on what to look for when choosing plants to avoid some common traps and the expense of losing plants unsuited to your conditions. The essential basics of cultivation for beginners are covered - potting media, mounting plants, repotting and deflasking as well as choosing locations and building bushhouses. There are suggestions for growing in country areas as well as indoors. The plant descriptions offer suggestions of plants to choose from as well as introducing some of the very varied forms of orchids.

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|--|-----------|---|--|--|--|--|
| PHALAEANOPSIS (continued)                      |           |   |  |  |  |  |
| Phal. Ever-spring King x Phal. I-Hsin Hatsuuki | W.T.Chien | Phal. Ever-spring King x Phal. Ho's French Fantasia<br>Phal. I-Hsin Golden Giant x Phal. Taipei Gold<br>Phal. Golden Grapes x Phal. gigantea<br>Phal. I-Hsin Hatsuuki x Phal. Tinny White<br>Phal. Taisuco Kochian x Phal. Grace Palm<br>Phal. Taisuco Kachian x Phal. Taipei Gold<br>Phal. Crystelle Smith x Phal. Lois Weaver<br>Phal. Taisuco Windian x Phal. Pioning Spring<br>Phal. Spirit House x Phal. Amnonosa<br>Phal. Little Richard x Phal. Abendrot<br>Phal. Lyndsay x Phal. Mary Crocker<br>Phal. Ile Réunion x Phal. Joyau<br>Phal. Neon Stripes x Phal. Fantastic Stripe<br>Phal. Little Steve x Phal. lindenii<br>Phal. Taisuco Kaala x Phal. Angel White<br>Phal. New Cinderella x Phal. Ming-Hsing Cinderella<br>Phal. Hwaling Redjewel x Phal. Ming-Hsing Cinderella<br>Phal. Ming-Hsing New Angel<br>x Phal. Ming-Hsing Mount Snow<br>Phal. Boediardjo x Phal. laycockii<br>Phal. King's Ransom x Phal. Cinnamon Gold<br>Phal. Golden Daybreak x Phal. equestris<br>Phal. Arcturus x Phal. Karin Stoiber<br>Phal. Yellow Peoker x Phal. Golden Sun<br>Phal. Ever-spring Light x Phal. Golden Sun<br>Phal. Yellow Peoker x Phal. Ching Her Buddha<br>Phal. Stone Balance x Phal. Chiayi Candy<br>Phal. Brother Girl x Phal. Brother Purple<br>Phal. Minho Gold x Phal. Musesashino<br>Phal. Hilo Lip x Phal. Taisuco Carol<br>Phal. Taisuco Carol x Phal. Taisuco Romance<br>Phal. Deventeriana x Phal. Brother Lawrence<br>Phal. Taisuco Glory x Phal. Asian Elegance<br>Phal. Taisuco Hatarot x Phal. Hsinton Rose<br>Phal. Chih Shang's Stripes x Phal. Taisuco Chingfang<br>Phal. Batik x Phal. ambolinensis<br>Phal. Bedford Sneyzy x Phal. equestris<br>Phal. Hita x Phal. Yukimai<br>Phal. Golden Pecker x Phal. New Cinderella<br>Phal. Ever-spring King x Phal. Chih Shang's Stripes<br>Phal. Ever-spring Light x Phal. Ching Her Buddha<br>Phal. Allen Kaala x Phal. Deventeriana<br>Phal. Yellow Peoker x Phal. Salu Princess | W.T.Chien<br>W.T.Chien<br>W.T.Chien<br>W.T.Chien<br>W.T.Chien<br>Knull-Smith<br>B.Woodson<br>Akatsuka Orch.Co.<br>Carter & Holmes<br>Harold Johnson(O/U)<br>Allen Merriman(Carmela)<br>Noël Fanlie<br>W.T.Chien(Ming-Hsing Orch.)<br>W.T.Chien(Ming-Hsing Orch.)<br>W.T.Chien(Ming-Hsing Orch.)<br>W.T.Chien(Ming-Hsing Orch.)<br>W.T.Chien(Ming-Hsing Orch.)<br>S.Y.Alsagoff<br>Owens Orchids<br>Owens Orchids<br>M.& M.F.Bourdon(O/U)<br>Ching Her<br>Ching Her<br>Ching Her<br>Chen Gee-En<br>J.Hernandez(O/U)<br>Taida<br>Taisuco<br>Taisuco<br>Taisuco<br>Taisuco<br>Taisuco<br>G.S.Push(O/U)<br>E.Massarali<br>Owens Orchids(O/U)<br>Ching Ann<br>Ching Ann<br>Ching Ann<br>Akatsuka Orch.Co.<br>Ching Her | POTINARA (continued)<br>Samba Warrior<br>Winter Golden Star<br><br>PROPETALUM<br>Semaphore<br><br>*RENFELDARA (Ritda.)<br>Jerry<br><br>RENANTHOPSIS<br>Newberry Charm<br>Pensang Miami<br><br>RHYNCHOVANDA<br>Noël Bernard<br><br>RODRICIDIUM<br>Frou-Frou<br>Susan Perreira<br><br>RUMRILLARA<br>Fenland Amber<br><br>SARCOCHILLUS<br>Audrey<br>Eva<br>Ginger<br>Sophie<br>Tibrogargan<br>Zoe<br><br>SARTYLIS<br>Bravehart<br><br>SOPHROCATTELYA<br>Dal's Tradition<br><br>SOPHROELIA<br>Jeka<br><br>SOPHROLAEL/OOCATTELYA<br>Angel Queen<br>Angel's Pride<br>Bill Allwood<br>Bright Hawaii<br>Catherine Tarnaci<br>Cosmic Delite<br>Crown Jewel<br>Fenland Maytime<br>Mosorp<br>Samba Princess<br>Tracy Beale<br>Tsiku Cyclamen<br>Tsiku Dahlia<br>Tsiku Friesia<br><br>STANFELDARA<br>Tsiku Verbena | Pot. Pacific Warrior x Blc. Toshie Aoki<br>Pot. Lemon Tree x Blc. Golden Light<br><br>Z. Artur Elle x Prom. Crawshawana<br><br>Ada keiliana x Oodcm. Sorel Point<br><br>Ren. Brookie Chandler x Phal. philippinensis<br>Ren. Kalsom x Phal. equestris<br><br>V. leres x Rhy. retusa<br><br>Rdz. venusta x Orc. Irene Hardy<br>Rdcm. Robsan's Treasure x Orc. Sniffen<br><br>Neost. Lou Sneary x Asctm. curvifolium<br><br>Sarco. Sua x Sarco. hartmannii<br>Sarco. cecilliae x Sarco. Cherie<br>Sarco. Cream Cake x Sarco. Heidi<br>Sarco. Redstone x Sarco. fitzgeraldii<br>Sarco. Cherie x Sarco. Pinky<br>Sarco. Cherie Snow x Sarco. Heidi<br><br>Sarco. Fitzhart x Rhy. gigantea<br><br>C. Horace x Sc. Beaufort<br><br>Soph. coccinea x L. rubescens<br><br>Slc. Bright Angel x Lc. Bonanza Queen<br>Slc. Bright Angel x Sc. Petite Pride<br>Slc. Kauli Starbright x L. anceps<br>Slc. Bright Angel x C. Hawaiian Jewel<br>Slc. Hazel Boyd x C. loddigesii<br>Slc. Bright Angel x Sc. Batemanniana<br>Slc. Bright Angel x L. sincorana<br>Lc. Fenland Springtime x Sl. Orpetii<br>C. Moscombe x Sl. Orpetii<br>Slc. Jeweler's Art x C. loddigesii<br>Sc. Calypso x L. Quesada<br>Slc. Linda Ann x Slc. Wendy's Valentine<br>Slc. Mahalo Jack x Lc. Love Knot<br>Slc. Orglade's Startype x Sc. Beaufort<br><br>Epi. Starfire x Soph. coccinea |  |
| PHALAEANOPSIS (continued)                      |           |   |  |  |  |  |
| Phal. I-Hsin Dainatian                         |           |   |  |  |  |  |
| Phal. I-Hsin Fantasia                          |           |   |  |  |  |  |
| Phal. I-Hsin Gold Coin                         |           |   |  |  |  |  |
| Phal. I-Hsin Golden Giant                      |           |   |  |  |  |  |
| Phal. I-Hsin Ivory                             |           |   |  |  |  |  |
| Phal. I-Hsin Milk                              |           |   |  |  |  |  |
| Phal. I-Hsin Pudding                           |           |   |  |  |  |  |
| John Naugle                                    |           |   |  |  |  |  |
| John Diamond                                   |           |   |  |  |  |  |
| Jose Carreras                                  |           |   |  |  |  |  |
| Phal. Little Abendrot                          |           |   |  |  |  |  |
| Mary Brooks                                    |           |   |  |  |  |  |
| Memoria Lilian Fogel                           |           |   |  |  |  |  |
| Merriman's Magenta                             |           |   |  |  |  |  |
| Michelle Lyn Fanlie                            |           |   |  |  |  |  |
| Ming-Hsing New Angel                           |           |   |  |  |  |  |
| Ming-Hsing Peach                               |           |   |  |  |  |  |
| Ming-Hsing Plum                                |           |   |  |  |  |  |
| Ming-Hsing Snow Angel                          |           |   |  |  |  |  |
| Nonieto Dolera                                 |           |   |  |  |  |  |
| Pisgah Treasure                                |           |   |  |  |  |  |
| Pisgah Twinkle                                 |           |   |  |  |  |  |
| Point de Raiponce                              |           |   |  |  |  |  |
| Salu Peoker                                    |           |   |  |  |  |  |
| Salu Prince                                    |           |   |  |  |  |  |
| Salu Super Star                                |           |   |  |  |  |  |
| Stone Lodge                                    |           |   |  |  |  |  |
| Strawberry Gold                                |           |   |  |  |  |  |
| Taida Lemon                                    |           |   |  |  |  |  |
| Taisuco Anna                                   |           |   |  |  |  |  |
| Taisuco Jimmy                                  |           |   |  |  |  |  |
| Taisuco Jonny                                  |           |   |  |  |  |  |
| Taisuco Lime                                   |           |   |  |  |  |  |
| Taisuco Momo                                   |           |   |  |  |  |  |
| Taisuco Romance                                |           |   |  |  |  |  |
| Tan Lee Moy                                    |           |   |  |  |  |  |
| Thunder Puppy                                  |           |   |  |  |  |  |
| White Tie                                      |           |   |  |  |  |  |
| Yann Mei Cinderella                            |           |   |  |  |  |  |
| Yann Mei Peoker                                |           |   |  |  |  |  |
| Yann Mei Rainbow                               |           |   |  |  |  |  |
| Yellow Kaala                                   |           |   |  |  |  |  |
| Yellow Princess                                |           |   |  |  |  |  |
| PHRAGMIPEDIUM                                  |           |   |  |  |  |  |
| Ronni Lynn                                     |           |   |  |  |  |  |
| Stacey Ann Lynn                                |           |   |  |  |  |  |
| Wössner Purlpedanca                            |           |   |  |  |  |  |
| POTINARA                                       |           |   |  |  |  |  |
| Carito al Crepusculo                           |           |   |  |  |  |  |
| Duh's Regal                                    |           |   |  |  |  |  |
| Exotic Dream                                   |           |   |  |  |  |  |
| Leomar   |           |   |  |  |  |  |
| Marilla  |           |   |  |  |  |  |
| Mini Constellation                             |           |   |  |  |  |  |
| Samba Glory                                    |           |   |  |  |  |  |

| NAME   | PARENTAGE   | REGISTERED BY   |
|--|---|---|
| STENOGLOTTIS<br>Longwood   | <i>Sngl. woodii</i> x <i>Sngl. longifolia</i>   | S.Orchard   |
| THELYMITRA<br>Seagull  | <i>Thel. nuda</i> x <i>Thel. epipactoides</i>   | Nesbitts  |
| VANDA<br>Clare Leong<br>Indigo Dawn<br>Memoria Dottie Geary<br>Pavitta Blue<br>Samba Delight<br>Samba Gold     | <i>V. Charles Goodfellow</i> x <i>V. dearei</i><br><i>V. Sarapee Blue</i> x <i>V. Popimol</i><br><i>V. Faye Bennett</i> x <i>V. Pat Delight</i><br><i>V. Bangyikhan Blue</i> x <i>V. Lumpini Red</i><br><i>V. Fuchs Delight</i> x <i>V. David Gardner</i><br><i>V. Thailand Gold</i> x <i>V. Fuji-Yama</i>  | Harold Johnson<br>Summerfield Orch.(Kutana)<br>Orchidopolis(T.Ritter)<br>V.Sapparojattana<br>R.Agnes(Aranda Orquideas)<br>R.Agnes(Aranda Orquideas) |
| VANDAENOPSIS<br>Law's Surprise   | <i>V. Poy Thong</i> x <i>Phal. serpentina lingua</i>  | Law Moi Hwa   |
| WILSONARA<br>Alexandra<br>Cancun<br>Floana<br>Floelle<br>Island Glow<br>Mac's Wonder<br>Marble Matrix<br>Socat | <i>Wils. Catherine</i> x <i>Wils. Solastern</i><br><i>Odcdm. Helmut Rohrl</i> x <i>Oda. Blue Chanson</i><br><i>Oda. Floella</i> x <i>Odcdm. Solana</i><br><i>Wils. Floana</i> x <i>Wils. Celle</i><br><i>Oda. Lynx</i> x <i>Odcdm. Crowborough</i><br><i>Odcdm. Big Mac</i> x <i>Oda. Wearside Wonder</i><br><i>Wils. Arm-Roy's Fantasy</i> x <i>Oda. Stromar</i><br><i>Wils. Catherine</i> x <i>Odcdm. Sorel Point</i> | H.Rohrl<br>H.Rohrl<br>H.Rohrl<br>H.Rohrl<br>Glen.O.Acres<br>H.Rohrl<br>Sunset<br>H.Rohrl  |
| YAMADARA<br>Sheridan Beale   | <i>Yam. Hornet</i> x <i>C. skinneri</i>   | K.& B.Beale   |
| ZYGOCOLAX<br>Mannum  | <i>Z. Quorn</i> x <i>Zcx. Gumeracha</i>   | Adelaide  |
| ZYGONISIA<br>Maui Melody   | <i>Z. James Strauss</i> x <i>Agn. cyanea</i>  | Exotic Orchids  |
| ZYGOPETALUM<br>Black Opal<br>Granite Island<br>Hove<br>Kwi Korfer<br>Marino Rocks<br>Merlins Magic<br>Seacliff | <i>Z. Blanchetown</i> x <i>Z. Helen-Ku</i><br><i>Z. Advance Australia</i> x <i>Z. crinitum</i><br><i>Z. B. G. White</i> x <i>Z. Helen-Ku</i><br><i>Z. Kwi</i> x <i>Z. Kiwi Klassic</i><br><i>Z. Pinnaroo</i> x <i>Z. Helen-Ku</i><br><i>Z. Atur Elle</i> x <i>Z. Kiwi Magic</i><br><i>Z. Titanic</i> x <i>Z. Inky Dink</i>  | Adelaide<br>Adelaide<br>Adelaide<br>R.Tucker<br>Adelaide<br>Ivens<br>Adelaide   |

\* New intergeneric name with abbreviation for the following combination. The botanical authority follows each component genus.  
*Agasepalum* = *Aganisia* Lindley x *Zygosepalum* H.G.Reichenbach  
*Holocentrum* = *Ascozentrum* Schlechter x *Holcoglossum* Schlechter (First time accepted as a hybrid genus in registration)  
*Rehfeldara* (Named in honour of Jerry Rehfield the well known hybridizer of California, USA) = *Ada* Lindley x *Odontoglossum* Kunth x *Orcidium* Swartz

† Natural genus new to registration. The botanical authority follows the generic name.  
*Holcoglossum* Schlechter (In its own right, not as a synonym for *Neofinetia* or *Vanda*.)

§ First registration as a grex of a natural hybrid.  
*Cism. Sodiroi*

† Species appearing for the first time as parents in registration:-  
*Bifrenaria vitellina*; *Brassia bidens*; *Bulbophyllum burfordense*; *Catasetum lanciferum*; *Holcoglossum flavescens* accordingly.

GENERAL CORRECTION  
*Dendrobium rhodopterygium* is now regarded as a species, not a natural hybrid and records have been changed accordingly.

CORRIGENDA - Sander's List of Orchid Hybrids 1991-1995  
(PPrimary entries only noted below)  
p.258 *Den. bigibbum*: add under, x Tiny Tyke = Neesha's Diamond  
p.266 *Den. compactum*: delete entries under  
p.310 *Den. Miva Roc*: delete parentage and add note See Iliam Dhone  
p.313 *Den. Neesha's Diamond*: seed parent should read *bigibbum*

## TRANSFER OF ORCHID REGISTRATION OFFICE

On 28 February 2001 the current International Orchid Registrar and Assistant Orchid Registrar will be retiring and a new International Orchid Registrar installed. Therefore please note that as from 1 March 2001 all correspondence and communications regarding orchid hybrid registration should be addressed to the International Orchid Registrar, Royal Horticultural Society's Garden, Wisley, Woking, Surrey GU23 6QB, England (e-mail: [orcreg@rhs.org.uk](mailto:orcreg@rhs.org.uk)).

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Orchid Registrar, P O Box 1072, FROME, Somerset BA11 5NY, England

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# Growing Orchids On Mounts

by Brian Milligan

Most of the epiphytic orchid species in our collections grow in nature with their roots partly or fully attached to tree branches or trunks. Why then, do we try to grow them in pots? Mainly for convenience – most orchids on mounts need to be watered daily during their growing season, whereas those in pots may be left for two or three days between waterings in summer and for a week or two in winter before they need to be watered again. But there are disadvantages in trying to grow some species orchids in pots; it's only too easy to rot their roots by keeping the potting mix too wet, especially when the orchid is in its natural dormant season and its roots are incapable of transferring moisture to the rest of the plant. Those species with long dormant periods, such as *barkerias*, *Encyclia citrina* (now *Euchile citrina*), *Laelia speciosa* and some *oncidiums*, grow much better on mounts; cultivation in pots often leads to slow decline unless great care is taken to water only when absolutely necessary.

Tree branches are the natural hosts for many orchids, so it seems logical to use tree branches for mounts. In nature, however, many orchid species prefer particular tree species and it follows that these orchids may not do as well on some mounts as they do on others. Unfortunately in many instances, especially with exotic species, the natural host is unprocurable here in Australia, so we must make do with branches from our common garden trees. Generally the branches of rough-barked hardwood trees, such as oak, *Casuarina*, peach, apricot etc., are most suitable. Orchid roots seem to cling better to rough bark than to smooth, and rot-resistant hardwood is more durable than many softwoods, such as pine. Unfortunately no timber mount lasts forever and eventually the orchid will need to be remounted when the mount sheds its bark, rots or is attacked by borers or other insects. Some growers dip their mounts periodically in insecticide solution to deter insect attack.

Alternatives to tree branch mounts include natural cork (the bark of cork oak trees grown specifically for producing cork, mainly in Portugal) and old (weathered) hardwood fence palings. All of the above mounts dry out quite rapidly and need watering daily during most of summer – even more often on very hot days.

Some growers prefer to use tree fern mounts (aged, black material is best), because it retains more moisture and therefore needs watering a little less often. However, in my experience orchids mounted on tree fern do well only for a few years before they begin to decline. This behaviour is generally attributed to the development of acidity in the mount. Some growers dip their tree fern mounts periodically in lime solution to counteract it. Perhaps I should have applied the lime treatment earlier or more frequently because I've never had much success in resurrecting sick orchids mounted on tree fern in this way.

Many alternatives to timber, cork or tree fern mounts have been tried as orchid mounts. Examples include slate, sandstone, upturned terra cotta pots and terra cotta agricultural pipes. One ploy to avoid the need for frequent watering is to mount the orchid on a terra cotta pipe blocked at one end by a suitable plug. The pipe is then hung from the shade-house roof and (during the summer months) filled with water. Slow diffusion of water through the porous pipe keeps the orchid's roots damp and also helps to maintain a more humid environment. I've seen this method used for growing the Australian thumbnail orchid, *Dockrillia linguiformis*, but don't know how well it works in the long term.

A recent innovation, which I first heard of a couple of years ago, is the use of recycled rubber floor matting for orchid mounts. These mats are made of shredded car tyre rubber, which has been bonded together to form a water-permeable mesh about 12 mm thick. The matting holds a lot of water when first wet but drains and dries quickly because the rubber itself absorbs none. These mats are not cheap (about as expensive as natural cork) but have the advantage that they should be almost indestructible, being resistant both to decay and to attack by insect pests. Mounts can be cut to size with a pruning saw and drilled like tree branches to attach wire hangers. They have a very coarse surface, to which most orchid roots readily attach themselves. Orchids growing successfully for me on rubber mounts include *Dendrobium loddigesii*, *D. schneiderae*, *Maxillaria sophronites*, *Dinema (Encyclia) polybulbon*, *Baptistonia echinata*, *Zygostates grandiflora* and *Polystachya pubescens*.

When tying orchids to mounts, it's important that the plant be secured firmly so that the developing root tips are not damaged when the plant is moved during handling or by wind. The plant should always be placed directly on the mount, never with a layer of moss between the two. A thin layer of moss may be placed over the roots to conserve moisture but the new roots seem to attach themselves faster to the mount if no moss is used (assuming that you can water the plant daily).

Nylon fishing line is often used to secure an orchid to its mount. It must be pulled tight enough to fasten the plant to its mount firmly but not so tight as to cut the pseudobulbs or roots. Copper wire is sometimes used for large plants. I prefer to use plastic-covered wire because it is less likely to damage the plant, even when pulled tight. Yes, I agree that it's unsightly, but it can be removed within a year or two, as soon as the roots have taken good hold of the mount.

If you are unable to water your mounted orchids often enough to maintain good growth, try placing their mounts on the bench rather than hanging them. Hanging mounts seem to dry out twice as rapidly as those lying flat. Mounted orchids are best fertilised by dipping the entire mount in a dilute solution of liquid fertiliser. I dip my mounts in a very weak solution stored in a 40 litre plastic bin in my glasshouse on most days during the growing season. ■

Brian Milligan,  
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North Balwyn Vic. 3104

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# Storage of Chemicals

(pesticides, liquid fertilizers, fungicides etc.)

by Ronald Boyd

I personally recommend that these all be stored behind a locked door, away from all the curious and prying fingers of children or pets.

Secondly, give some thought to where you store all these chemicals, personally I store all mine in a solid foam box with a good sealing lid, this at least keeps them cool and in a dark place.

Even if this box is stored in your glass/green house, it will give a lot of protection from the heat and sunlight. The heat and UV rays of the sun will quickly break down the chemicals in any bottle left out in sunlight very quickly.

If just left on a shelf underneath your orchid shelves the water will quickly spoil any packets containing powders, fertilizers etc. labels will usually be washed off or faded to make them unreadable and it is very easy to get bottles with no labels mixed up and often used with fatal results.

## Fertilizers

All fertilizer, Lime, Dolomite, Canunda shells, sel-grit, small gravel, dry manures etc (i.e. dynamic lifter., cow manure, blood and bone, etc). All these should be stored in a sealed waterproof drum. This will prevent contaminating by mice, rats etc, or spoilage by water contamination.

Mark all these storage containers with a permanent ink type texta, with the correct name of the contents, again store in a cool dark area if possible.

These containers are often picked up at Crazy Klints type shops for around \$2 each.

Mine are all stored in 20-litre drums with a good waterproof lid, cost me between \$1 to \$2 each.

## Pots

New pots, cleaned and sterilized used pots should be packed away from sunlight to prevent aging and cracking. Using the same type of foam box with a good sealing lid will also prevent pots from being contaminated by soil borne disease, scale carrying ants, mites, spiders etc. Then when you need to use them to put your-prized orchid in, at least you will know that they will have a good start to life in a clean pot.

I find I usually can pick these foam boxes up at supermarkets where they have veggies for sale. Usually called broccoli boxes, cost is usually free, but some will charge between a \$1 to \$2 each. (Wash and sterilize before use). On the other hand, they can be bought new for around \$5. I have for years used them in the sun and have found that they will usually give up to six years or more of life if handled properly.

## Potting mixes

I again store all my orchid bark or mixes in a sealed drum, or if brought in a good plastic bag, keep the top tied after opened. All these should be stored in a cool dark area, away from rats, mice or any other items that may contaminate them.

This may seem like a lot of trouble to go to, but believe me, it will save a lot of heartache from your favourite (and expensive) Orchid dying from disease or contaminated potting mixes.

Good growing, Ronald Boyd

34 Hillside Crescent  
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## Attention AOR readers and Orchid Societies

*"This and That" is a regular feature of the Australian Orchid Review and readers and Orchid Societies are invited to contribute any small news items of interest to Orchid lovers.*

*The deadline for items can be found on page 3.*

*Address all correspondence to the Editor. "This and That", Australian Orchid Review, 14 McGill Street, Lewisham, NSW 2049.*

Bowen is the oldest town north of Brisbane and on Sunday morning club members will show their guests the beauty and history displayed in Murals round the town. The afternoon will be devoted to visiting local members' bush houses and gardens. Activities are designed to give everyone time to view the orchids again and again. After all this is an orchid conference!

If you would like more information please call the conference secretary, Mrs Lynn Smith, P.O. Box 383, Bowen 4805 or telephone 07 4784 2256."



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## 28th Charity Orchid Show

The Brisbane Orchid Society is conducting its Annual Charity Orchid Show on Saturday the 7th and Sunday the 8th of April 2001.

All proceeds will be going to the Pre-School Association for the Education of Deaf Children at Yeerongpilly, Brisbane. The society has been able to give donations in excess of \$55,000 to various charities from previous shows.

A spectacular display of orchids in bloom will be presented in a wide variety of genera. Plants in flower will be available for sale at very reasonable prices. Featured will be potting demonstrations and cultural advice from expert growers within our society. Refreshments will also be available.

The Venue is; Mt. Gravatt Showgrounds, Logan Road, Mt. Gravatt. Dates: Saturday, 7th April 8.30am-5.00pm; Sunday, 8th April 8.30am-3.00pm. Admission \$3.00.

For further information please contact our Show Captain Allen Ellis - 3349 1351.

## "Registrations closing for 36th T.Q.O.C. Conference"

Last call to come "Back to Beautiful Bowen by the Beach" for the Tropical Orchid Council Conference to be held in Bowen from Friday the 8th to the 11th of June 2001.

Early registrations close the 9th April. Cost per registrant is \$110. Late registrations will be taken up to 9th May. The cost for these will be \$120 per person. This fee covers satchels, three dinners, two lunches and three morning/afternoon teas as well as entry to exhibits.

The club has been overwhelmed by the response from near and far to attend and together with Bowen's perfect weather (it rarely rains), friendly and enthusiastic club members to guarantee a wonderful weekend, you can't afford to miss out!

Visitors will be able to view the orchids Saturday afternoon after a bus tour of a local small crop and a live fish export depot as well as a very unusual garden.

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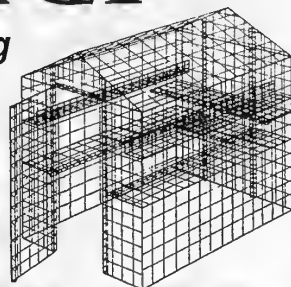
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## Cattleyas

We are now approaching catt. time. We see some of the best flowers during May-June. Some of the new white crosses are really a sight to see, and those semi albas are real eye catches. Some of those salmon pinks – watermelon colours and some of those flares can sure get you in!

Have you tried some of those mini catts yet? The beauty of these is that they seem to flower every time a new growth matures. The other bonus is that they do not take up bench space. Now is the time to try a few. Most of the nurseries who advertise in our magazine stock a good range of these mini catts.

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Now that autumn has arrived it is time to move your plants under some form of shelter. You could cover your green house with green house poly or get a solar weave cover made to keep the elements out. SILVERWOOD NURSERY at Ludenham, west of Sydney make a pre fab green house that can have a solar weave cover that is attached by eyelets and velcro. This is a good system as the cover can be removed when spring arrives. If you use this system you can install a small heater if you live in a frosty area. Connect the heater to a thermostat and set it at ten degrees Celsius.

Watering is important during autumn. Drench plants thoroughly weekly. After drenching give the plants an application of a good general-purpose fertiliser. HSO or GARDEN PARTY® is ideal. Remember you must flush well now or you could get chloride and sodium problems in your media.

New fungal problems seem to appear regularly these days. *Phytophthora* spp seems to be a problem these days. I wonder if the fungal spores come in the bark. The first signs are black blotches on the leaves that seem to grow down the leaf down into the bulb. The first thing to do is withhold all water and drench with FOLI-R-FOS®. More on cattleyas and disease in later notes.

Look for scale and mealy bug. Try and eliminate these pests before winter comes. Some growers I know have had good success using ECO-OIL®. Remember when using oil – DO NOT APPLY IF TEMPERATURE IS ABOVE

28 degrees C., and very importantly make sure you spray under the leaves and all around the bulbs.

Seedlings can still be potted on during autumn.

## Cymbidiums

By the time you read these notes the first of the cymbidiums should be in bloom. Some of the new early crosses seem to be getting earlier and better. To a lot of growers real early cymys are not very popular. If you can get a good crop of whites for Mothers Day – well that could be great!

Be careful when working amongst your plants or you could knock off those emerging spikes. Many growers place a stake beside all emerging spikes so you will be careful when working on your plants. Now is your last chance to clean up your plants, Remove weeds – check for mites and scale. Spray if necessary, but beware – may sprays can cause phytotoxicity problems. Read labels carefully before using.

After summer rains mice can become a pest by eating your new spikes STORM® worked very well last season for most growers. A few snail pellets around each pot should keep slugs and snails at bay. If you can afford it you can spray your plants with MEASUROL® SLUG AND SNAIL SPRAY. This gives good protection for your upcoming flower spikes.

Many growers are now fertilising weekly with CAMPBELLS YELLOW or HSO 12. If you wish to increase size and colour an application of K-D-L every second week will do the trick.

Watering should now be done in the morning. This gives the plant time to dry out before evening. Depending on your local climatic conditions, they will need watering every three or four days.

Now is a good time to clean out your plants flowering house. Remove all trash off benches and under benches. Clean inside glass with HY-SAN®. Spray a solution of copper sulphate under benches and paths after cleaning. This will help keep algae and fungal spores under control.

Before bringing your plants into their flowering house give plants a good spray with HYOSAN® to try and eliminate flower-spotting problems. The latest control of *botrytis* is now to use a combination of fungi called TRI-D24R. These fungi help control *botrytis* spores and many other soil born fungi. Remember, if you do not control *botrytis* spores now you could thousands of those little brown spots on your blooms! To control flower-spotting fungi – air circulation is very, very important. Morning air helps control these little spores, as they do not like air movement! As I have always said – chemicals cannot control poor culture!

## Natives

Autumn is a great time for native orchid growers. There are lots of orchids in bloom ranging from the spectacular, tropical *Dendrobium biggibum*, and *Phalaenopsis rosenstromii* to tiny cool-growing Bulbophyllums such as *B. schillerianum*, *B. exiguum*, and intriguing natives such as *D. schneiderae*, *D. bowmannii*, *B. weinthalii*,

ACR 151

# Suppliers of quality...

... *Cymbidium*, *Zygopetulum*, *Phalaenopsis* and *Brassia* plants. From flask to flowering size plants, both seedlings and *Cymbidium* mericlones

During the summer we have been busy and are proud to invite you to visit our new display area including a quiet spot to enjoy our free tea and coffee. In May we will launch our autumn catalogue, which includes plants, Community Pots and Flasks lists. This will contain five new release mericlones. Remember if you aren't on our mailing list give us a call.

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*B. macphersonii* and *Cadetia* species. The not-so-pleasant *Liparis* species also bloom in autumn. These months also see the return of terrestrial species such as *Corybas*, *Acianthus* and *Pterostylis* for the year.

At home it is time to get ready for winter. You should know what to expect in your local area with regard to minimum temperatures and allowing for a bit more of an extreme is probably a good idea with the uncertainty that is developing in weather patterns. (This unpredictability alone is good reason to preserve any species orchids you may have, particularly if they are descendants of bush collected plants and you have a record of their origin.) Those who live in areas that get heavy frost and months of cold conditions need to give their plants much more and earlier protection than those of us who live in coastal areas where minimum temperatures rarely get to 0°. Be sure your heaters are working properly and check for broken glass or damaged covering and vents that don't seal properly. Cold draughts can damage plants and the leak will add to your power bill. Clean up outside to ensure you get maximum sunlight and warmth on your heated house.

Other winter preparations involve cleaning up plants by removing any dead leaves and pseudobulbs that could end up infected with fungus. The cool nights and days with a fresh breeze and bright sunshine typical of April really are great for outdoor jobs. (Unless it decides to rain non-stop for a month.) Clean up under benches and prune any foliage plants so they will be ready to get going as soon as spring arrives. Prune branches and hedges that overhand the northern side of you shadehouse to let in more winter sunlight but keep in mind that a leafy canopy can provide good frost protection.

This is not a good time for repotting as root growth slows with the arrival of cooler weather. Any plants repotted now will not be able to spread their roots through the new media and will be at risk of root rots. Only repot emergency cases now: those plants that are obviously in trouble as summer growth was weak or lost. Don't worry about severely potbound orchids. They should have finished growing for the year and will probably bloom really well as a result of the cramped conditions.

Deflasking is OK if you have flasks that look as if they will not make it to spring due to over crowding or lack of media. At this time of year there is less chance of the plants dehydrating, but keep them in a protected place over winter. A tray or two could probably be brought indoors.

Autumn is a time to enjoy a wide range of very varied blooms and to get things ready for winter which usually arrives in May.

## *Paphiopedilum*

The days are drawing in, the weather is cooler and the buds are beginning to appear in quantity in the paph. collection.

Regular – but not too frequent – watering and fertilising should be continued as before. The idea is to prevent the plants from drying out whilst avoiding an almost sodden condition. Fortunately the open nature of bark mixtures allow a fair degree of latitude with watering, but the potting material is breaking down by now

and it will hold moisture for longer than it did when fresh. Avoid, if possible, watering when the weather is wet – even in the glasshouse.

Shading should be reduced for the winter; this is best done shortly after Anzac Day.

As a general rule the white paphs. begin to flower around late April, followed by the greens, the reds, the autumn shades and finally the spotted varieties late in the season. Modern hybrids, with their very mixed ancestry, often depart radically from this rule. Many whites, incidentally, do not do well under cold conditions.

If you grow Paphs. for the show bench it is important to avoid crooked or asymmetrical

flowers. This is best done by keeping the stems upright and in good light from the beginning. Keep an eye out for buds caught under leaves and take the appropriate action. Whilst the growing stems are so soft to stake within about 50cm of the bud, they can be staked when they are somewhat longer than this. Staking is seldom necessary if the emerging buds are kept in good, even light. It is a good idea to shift plants, as buds are found, to a bright, evenly lit spot where they can be well spaced and, preferably, faced to the north. This area should be well baited for snails and slugs, which seldom damage Paph. plants but have no such compunction concerning the

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buds and flowers.

A good Paph, is more likely to catch the judge's eye if the flower looks at him rather than at the floor. You can train the flower to look slightly upward by allowing it to open with the stem leaning forward about 15 degrees or so. The pot should be put in this position when the bud is about to open and kept there for about a week after the flower has fully opened. The bud and stem must always be vertical when viewed from the front, otherwise the lip will lean to one side.

I do not advocate any kind of manipulation using cardboard, tissues, paper clips or the like. This invariably produces an unnatural looking flower which an experienced judge can spot at a glance.

## Vandaceous

**Watering:**— Don't allow to dry out. If orchids are in teak baskets or in pots without potting mix, then water thoroughly every morning. In hot dry conditions, a later afternoon misting is also beneficial. If orchids are in potting mix then watering every second day will probably be sufficient with a misting on alternate days.

**Light:**— Strap leaf vandas, ascocendas and other genera with wide leaves require 50% to 70% shade. Semi-terete and other narrow leaf types require less.

**Fertiliser:**— Continue as for Feb/March. Fertilise weekly, alternating over a four weekly cycle as follows —

Wk. 1. Inorganic low nitrogen — Campbells A. Flowfeed HP8 or Aqua-K.

Wk. 2. Wuzall Foliar or similar.

Wk. 3. Inorganic low nitrogen — as for Wk. 1.

Wk. 4. Organic — Fish Emulsion or Nitrosol.

**Pest Control:** Fungicide every six weeks (e.g. Daconil, Ridomil MZ WP or wettable Sulphur).

Use Diazanone, Malathion or Pyrethrum to control scale and insects.

## Phalaenopsis

**Watering:**— If weather is very hot and dry then water every morning. In times of heavy or overnight rain it is better to keep plants under a solid roof. As nights become cooler do NOT water late in the afternoon.

**Light:**— Phalaenopsis will still require up to 90% shade, particularly in the tropics.

**Fertiliser:**— Continue as for February/March. Do not fertilise dry plants — always water beforehand. Fertilise weekly alternating over a four weekly cycle as follows —

Wk. 1. Inorganic low nitrogen — Campbells A. Aqua-K, etc.

Wk. 2. Wuxall Foliar or similar.

Wk. 3. Inorganic low nitrogen — as for Wk. 1.

Wk. 4. Organic — Fish Emulsion or Nitrosol.

**Pest Control:**— Spray with Mancozeb and Kocide every four weeks or alternatively use Ridomil MZ WP. Use a bactericide such as Phytan 20 weekly to help control soft rot.

Use Diazanone, Malathion or Pyrethrum every four weeks to control scale and insects. If ants are a problem a dose of Lorsban should get rid of them.

Keep a close watch for mites and spray with a miticide as necessary

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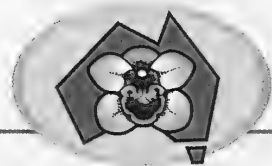
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# Cymbidiums

## KING OF THE ORCHIDS

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### Editor's Report

#### Hot, hot, hot

The stark reality of a hot Australian summer hit home to the many people living in the eastern states earlier this year. South Australians who live in the driest state, in the driest continent in the world, were forced to endure the hottest January on record - with the mercury climbing above 35°C on 17 occasions. Making matters even more unpleasant was the extent to which the mercury was able to climb without disappearing out the top of the thermometer. Temperatures of 40° to 46°C provide pretty unpleasant living conditions for Homo Sapiens, but spare a thought for those poor plants of yours which don't have the luxury of air conditioning. Speaking with growers since these events, would indicate that most suffered considerable leaf burn. Perhaps this is a timely reminder to go back and read Rob Smith's article *Growing Cymbidiums In An Arid Climate*, featured in the April/May 1998 *AOR*, or some reader out there may wish to share some of their wisdom with us on this subject.

In this issue Rob Smith brings us the story of Leon Van Rijn a young Dutch commercial *Cymbidium* grower. Rob, Noe and I interviewed this pleasant young fellow over lunch at Ararat while attending the National Cymbidium Orchid Show. Leon doesn't have to combat the extreme Australian heat, in fact, rather the opposite! In *Fleurijn Cymbidiums* Leon gives us an insight into the running of a state-of-the-art cut flower nursery.

Graham Morris shares with us the Valley Orchids 2000 Seedling "Six Pack". Since the inception of *Cymbidiums Australia* in

your *AOR* some five and a half years ago, we have endeavoured to keep readers up to date with new seedlings being flowered. Spasmodically this has occurred, with eye-catching orchid segments and the odd article from commercial growers, who always liked the idea but failed to follow it through. Finally, in the Feb/March issue we launched the "Six Pack" series, an exciting concept in which commercial growers bring you a selection of their six best seedlings. Why the name? Well, we decided to keep it "short and sweet", six seedlings, in six hundred words or less, and of course "Aussies" affinity with the good old "barbie" and the six pack, made the name "Six Pack" a certain choice.

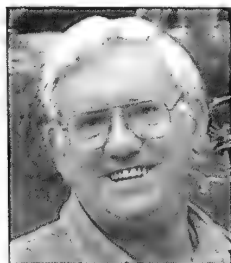
Fungal problems beset most of us on the odd occasion. When they occur there is often panic and uncertainty as to what action to take. Helmuth Gerber experienced such an event twelve months ago and, by going to the right source for information, Helmuth was able to solve them. His informative article will be of valuable assistance to those who experience such problems in the future. Look forward to further articles by Helmuth in which he will discuss methods for the prevention and control of fungal diseases.

In other features, we take a look at more Eye-catching Orchids at Ararat, Nado Lenkic reviews the Western Australia 2000 Annual Show, Rob Smith brings us an interesting snippet about Worth the Wait - published in Oct/Nov 2000 issue, and we publish the first major advertisement of this year's National Cymbidium Orchid Show.

Good reading, growing and showing. ■

**Dean Roesler**  
Editor

### Editorial Panel



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Meetings commence 8.00 p.m.

Venue: Lakemba Chapter Remembrance Hall,  
220 Lakemba Street, Lakemba, Sydney, N.S.W.

For further details contact  
Secretary, William Jablonski,  
Orchidland Nursery, 7 Nicholli Place,  
Kenthurst, N.S.W. 2156  
Phone: (02) 9654 9464,  
AH (02) 9654 8189  
President, Greg Bryant,  
Phone: (02) 9668 9374

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Main Meeting commences 8.00 p.m.

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For further details contact  
Secretary, Yvonne Longbottom,  
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Parafield Gardens S.A. 5107  
Phone: (08) 8258 3435  
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Venue: Mt. Waverley Youth Centre,  
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# Fleurijn Cymbidiums

Text by Rob Smith - Photography by Leon Van Rijn

During the year 2000 flowering season Leon Van Rijn, a commercial *Cymbidium* grower from Holland, visited Australia and took the opportunity to attend the National Cymbidium Show at Ararat. Over that weekend Leon kindly agreed to talk to the Cymbidiums Australia editorial team about Dutch *Cymbidium* growing and his nursery. As a consequence we adjourned to the pub across the road from the Ararat Town Hall for lunch and a chat and our thanks go to Leon for his time and patience in giving us an insight into a *Cymbidium* world so different from our own experiences. Luckily for us Leon's fluent English made up for our total lack of fluency in Dutch as he provided us with a picture of his *Cymbidium* world — second only to an expensive plane ticket and a personal visit to his nursery.

Leon is in his mid-twenties and has been

running his own nursery since the age of 19, establishing his operation 1992 along side his father's nursery in Pijnacker near the city of Delft, an area of Holland famous for its pottery (if my memory serves me correctly). Leon grew up in a commercial orchid nursery environment, his father having established his nursery some 25 years ago during the mid-seventies. While Leon decided to start his own nursery, his brother began with their father at the age of 21.

Leon's nursery is an entirely commercial *Cymbidium* operation in a house of nine thousand square metres sited on a two-hectare property, along with his father's 11 thousand square metre house. Computers control the climate in the growing areas, managing such things as the closing of screens over the plants at night and their opening during the day. CO<sub>2</sub> gas is added to promote growth, but

not in winter when it is possible that it can damage the flowers. The outside climate in Leon's area is cool temperate with plenty of rain and, therefore, cloud. Leon has found that light *per se* is not the most important factor, control is. The house is either heated or cooled to maintain fairly constant conditions with differentials of 10-15 degrees given to initiate spikes. Late flowering types are provided with an eight degree minimum, and Christmas types a minimum of 14 degrees — although Leon said that, ultimately, maintaining minimums is dependent on the price of gas (which at the time was 37(Dutch) cents a cubic metre in Holland).

Watering is controlled by a separate computer, which manages all watering and fertilising via drippers. All plants are potted in a Rockwool mix, made up of three different grades of the material and each with its own particular degree of water



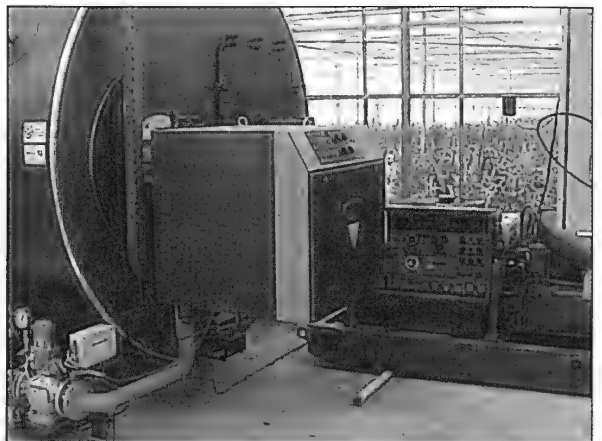
General view of Leon's Fleurijn Nursery



A block of *Cym. Western Rose* 'Pink Lady'



Nursery office showing computerised climate control



Heating system adjacent to main growing area



Computerised watering system and mixing tanks for automatic fertilisation (A&B)



A worker walking among plants in spike while tying spikes with overhead elastic

retention. A machine is used to mix the desired proportions, with Leon preferring to mix his own for control and economy rather than ordering a pre-mixed product.

Plants are grown in various pot sizes up to 300mm (12 litres) and there is no dividing done at the nursery as the plants are replaced by new ones coming on. All the plants are mericlones, either of new varieties or recloneings of proven types. For Leon, no dividing means less disease, less risk of virus and less stress, which could affect production. Leon is constantly on the lookout for new types, which are better than the types currently grown and prospective varieties are tried under his conditions before cloning and being included in full production.

Within the growing house there are 155 areas (or beds) each containing 75 plants, which produce approximately 10-12 spikes per square metre, with varieties such as *Cym. Red Beauty* 'Prinses Fredericka' possibly producing more than double that rate! Only standard sized flowers are grown with a minimum width of 100mm or the flower auctions don't consider them standards. The flowering sea-

son for the ultra-earlies begins in August and, in Leon's case, production really becomes serious from September and continues through until June, a season of ten months with good production for nine of those months. Leon uses elastic over wires to train spikes, preferring that method to NiCo Rolls. Plants grow on racks (benches) made of reinforcing rods with gutters under the racks. A refined cutting and packing system utilises a monorail running along the overhead heating pipes, with spikes hung upside down when cut and from the growing area they travel to the packing area.

Leon's flowers are sent to Flower Auction Holland (the English translation of the name of the auction house he uses), with 95% of production going to auction as mixed boxes. Greens are the most popular at auction, attracting a premium of 50% more in price on average — 6.5-10 Guilders (or about 40 cents) per bloom being the average price. His eastern-European customers prefer dark colours while France and Italy prefer pastels and light colours. It is obvious that Leon operates in a highly structured, competitive and

demanding market, yet his approach to *Cymbidium* growing is not a hard-nosed one. While he certainly has to maintain optimum growth and productivity to remain viable Leon's attitude may be surprising to some. He loves cymbidiums and believes that to grow them well it is necessary to like them and, like with any other job, to do it well you have to enjoy doing it. He admits that for commercial reasons he has to overcome his personal tastes by growing what he can sell as opposed to what he may like. However, he grows some seedlings purely for his own enjoyment and still enjoys the expectation, saying that they are like Christmas presents and he can't wait for the flowers to open.

Despite the levels of control over his growing environment, pests can still be a problem, with spider mite and thrips being the only real concerns, although the nursery supports a number of cats to control mice.

Leon tells us that Holland doesn't have a *Cymbidium* scene like we do here. There are no big shows like our national show, or orchid clubs, as we know them. They have organisations called Study Groups, who



View of greenhouse showing overhead guttering housing young plants



Potting area showing young plants potted into rockwool mix

share information on a regular basis and there is some knowledge of Australian cymbidiums and growers.

A number of Australian *Cymbidium* varieties are also known and grown in Holland and Leon buys plants from all over the world to get the right stock for his nursery. Long-grown and proven varieties such as *Cym. Jungfrau* and *Cym. Levis Duke* are still grown and he also grows *Cym. Forty Niner* 'Alice Anderson' (green) and *Cym. Valley Legend* 'Gee Whiz', which he reports as flowering darker in Holland than in Australia.

Leon recognises that in a competitive market such as Holland, just growing good orchids isn't enough and, as customer ser-



*Cym. Baltic Glacier* 'Mint Ice' a highly prized pure colour standard with excellent spike habit and production

vice is becoming as important as providing a quality product, he now offers a website access for current and potential customers. His site, [www.orchids.nl](http://www.orchids.nl) includes photographs of flowers and the ability for international orders to be placed via his e-mail address: [fleurijn@wxs.nl](mailto:fleurijn@wxs.nl).

For Dean, Noe and myself the hour or so spent talking with Leon was an eye-opening experience and, although none of us will ever know what running a state of the art commercial operation is really like, we gained a better understanding of another facet of *Cymbidium* growing. Again, our thanks to Leon and our best wishes for the future.

**Rob Smith**  
24 William Hunter Court  
Rosebud, Victoria 3939



Seedling selected for further trialing



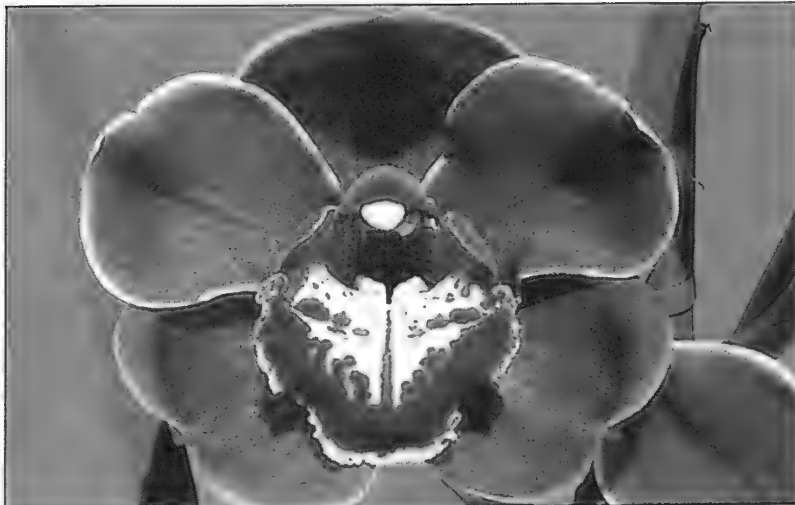
Seedling selected for further trialing



Seedling selected for further trialing

# The Valley Orchids 2000 Seedling "Six Pack"

Text and photography by Graham Morris



*Cym.* (Valley Regent 'Cardinal' x Red Valley 'Brilliant') 'Velvet'



*Cym.* [Red Valley 'Brilliant' x (Pure Dawn x Yowie Flame)] 'Superb'

Last season we flowered almost 4000 first-flowering *Cymbidium* seedlings. Overall, we were extremely pleased with the quality produced, but retained less than 200 for future assessment or mass production. Very many more were quite outstanding, but we only kept the best and most promising (for commercial purposes).

To choose the six best is a very difficult assignment. For this magazine, it would be tempting to discuss the best showbench varieties. Unfortunately this type of orchid accounts for only a small percentage of our sales. Commercial orchids (pot plant and cut flower) are of major importance to us. Many do exhibit showbench characteristics, but other factors are more important. The plants selected should also be important in future hybridising programs.

## 1. *Cym.* (Valley Regent 'Cardinal' x Red Valley 'Brilliant') 'Velvet'

This mating produced large numbers of very superior, very productive bright reds, which required little or no preparation for marketing. 'Velvet' flowered on a very small plant, with one bolt upright spike with nine very round, velvet red flowers. Will improve greatly on a larger plant.

## 2. *Cym.* [Red Valley 'Brilliant' x (Pure Dawn x Yowie Flame)] 'Superb'

This crossing introduces a brand new parent which produced amazing results when mated to a number of different clones. Every crossing produced large numbers of multi-spiking, upright bright pinks and reds, which required little or no manipulation to produce spectacular mass displays of flowers. It consistently produced three to seven spikes on first flowering seedlings. 'Superb' first flowered in early August, with four spikes of 10 to 13 flowers. It required absolutely no manipulation to produce the flowering shown in the photograph.

## 3. *Cym.* (Valley Rainbow 'Delight' x Margaret Thatcher) 'Leon'

This initially was a surprise. We have a big opinion of *Cym.* Margaret Thatcher, but were not so enthused about *Cym.* Valley Rainbow, which was very productive, with masses of crystal white, long lasting flowers. Its decorative spike habit,





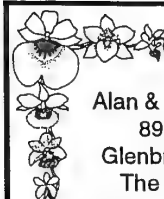
Cym. (Valley Rainbow 'Delight' x Margaret Thatcher) 'Leon'



Cym. (Valley Oracle 'Kermit' x Rembrandt 'Masterpiece') 'Discus'



Cym. (Valley Legend 'Stef' x Margaret Thatcher) 'Awesome'



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## CYMBIDIUMS AUSTRALIA

however, made it very difficult to prepare for sale. It surprised us by consistently producing very good shaped progeny on tall upright spikes, when mated with many other parents. 'Leon' first flowered on a small plant with one huge upright spike of 18 clear green flowers of good shape. It is under contract to a leading Dutch grower, who saw it while visiting the nursery.

### 4. *Cym.* (Valley Oracle 'Kermit' x Rembrant 'Masterpiece') 'Discus'

This crossing is very exciting. We only flowered a dozen or so and we kept them all. Most flowered on extremely small, one bulb plants, but managed seven to 10 good shaped flowers on tall upright, self supporting spikes. Both parents look destined to be important parents of the future and are both extremely free flowering. One point of interest is that we now have a very superior mutation of *Cym.* Valley Oracle 'Kermit' which is likely to produce even better results. 'Discus' flowered in early June, with six flowers on a tall spike, on a single small-bulbed plant (about the size of a walnut).

### 5. *Cym.* (Valley Legend 'Stef' x Margaret Thatcher) 'Awesome'

We had dozens of exceptional clones from this mating. First flowerings on reasonable sized plants produced tall, multiple spiking, greens and yellowish greens with good shape. Flower counts of 15 to 18 were consistently produced. 'Awesome' flowered on a very small, one bulb plant, with seven very full shaped orange/yellow flowers. It lasted for months, even after pollen caps were removed. It first flowered in early July.

### 6. *Cym.* (Bold Valley x Valley Picture) 'White Lip'

This crossing produced lots of bold orange clones, with big spectacular lips (from *Cym.* Valley Picture). A small percentage had very pale lips (from *Cym.* Bold Valley). 'White Lip' is a most unusual orange, with a hint of pink and had one upright spike of nine flowers on a small plant. It has a most beautiful complimentary white lip.

**Graham Morris**  
5 Friar Court, Salisbury East, SA 5109



*Cym.* (Bold Valley x Valley Picture) 'White Lip'

# The Cymbidium Club Of Western Australia 2000 Annual Show

Text by Nado Lenkic - Photography by Ted Brinkworth

**T**he fifth Annual Show of The Cymbidium Club of Western Australia was held between August 14 and 19 last year, and saw a return to the Karrinyup Shopping Centre after being at Whitford City in 1999.

The four previous Grand Champions were all different plants owned by different growers. The tradition continued with the win by that marvellous grower of yellow cymbidiums, Claude Surman, with his *Cym. Tony McCartney* 'Dee', a most impressive, beautifully balanced molten gold standard, with a semi-barred lip edged in yellow.

The plant consisted of three green and three back bulbs, and was growing in a 175mm pot. One upright raceme supported 11 flowers. It was also awarded an HCC (Highly Commended Certificate) and was judged to be the Best Standard of the show. *Cym. Tony McCartney* resulted from the Bryants Orchids crossing of the fabulous stud

plant *Cym. Coraki* 'Margaret' 4n with *Cym. Sister Miller* 'Cheryl'.

The Reserve Champion was *Cym. (John Jansma x Daffodil Grove)* 'Wishing Well' — a tall spiking yellow/brown polychrome standard with a lovely deep maroon barred lip — grown by Ezi-Gro Orchids. A good "judges" plant, but didn't appeal to me because of its nondescript colour.

## Some Eye-Catchers from the Show

A few of the plants that caught my eye included:

*Cym. Pharaoh's Gold* 'John's Delight' — a brilliant pure colour yellow with two racemes of 13 and 15 blooms, from probably the premier *Cymbidium* grower in the state — Steve Thomas. This plant was my standout of the show.

*Cym. (Sussex Dawn x Tom Thumb)* 'Karrinyup' — Keith and Judy Podger's inaugural CCWA Grand Champion. An iridescent electric green mini with seven

erect flower stems that really lit up the display that it was in.

*Cym. (Last Tango x Ruby Eyes* 'Red Baron' 4n) from Ted Brinkworth, was a pendulous red/brown mini with a 'Red Baron' type lip. Two racemes carried 16 flowers each — this from a tiny plant with one green bulb and two back bulbs!

*Cym. Culpaulin* 'Masterpiece' — an impressive large shapely lemon/yellow with a peppered lip. The best flowering of this clone that I have seen. Prepared by First Division grower, Rosemary McGrath.

*Cym. Mighty Tracey* 'Orange Glow' — well named with 14 blooms of caramel/orange, and a white based, red barred lip.

*Cym. (Valley Bay x Dutchman's Delight)* 'Fine Print' — a large cream with a hint of green and an almost all cream lip, except for a vertical line starting from the keels, and the odd dot or two. From Ezi-Gro Orchids.



*Cym. Tony McCartney* 'Dee'



*Cym. (John Jansma x Daffodil Grove)* 'Wishing Well'

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## CYMBIDIUM AUSTRALIA



*Cym. (Sussex Dawn x Tom Thumb) 'Karrynyup'*

*Cym. Mount Vision 'Pox'* — a most appealing soft light pink with dashes and dots on all segments. Also from Ezi-Gro Orchids. Pity about the name.

*Cym. [(Pure Bisque x Claude Pepper) x Sleeping Dawn]* — a large shapely warm apricot/orange with three racemes, from Ray Maisey.

*Cym. Fuss 'Fantasy'* — perennial favourite dusky pink with a blackish barred lip on a white background. Most eye-catching with five arching racemes and well grown by Ted Brinkworth.

*Cym. Bedivere 'Highbury'* — a most spectacular pendulous tan mini with 35 racemes! Not surprisingly, won Best Specimen of the show for David and Fay Deverell.

*Cym. Winter Maid 'Brilliant White'* — an upright clean delicate-looking white



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State Champion Display by Ezi-Gro Orchids





*Cym. Pharaoh's Gold 'John's Delight'*

with a soft blush lip lightly peppered with red on the mid section. Displayed by Kevin Butler of Ezi-Gro Orchids.

*Cym. Red Valley 'Brilliant'* — Helen Stretch's upright reddish/purple with a broad deep maroon barred lip and three racemes.

*Cym. (Willunga Royal 'Orange Delight' x Ruby Eyes 'Red Baron' 4n)* — a lovely decorative burnt orange possessing a deep blackish maroon barred lip. Carried four flower stems and from the stables of the emerging First Division grower, Ted Brinkworth.

#### Other Notable winners:

Best Intermediate — *Cym. Willunga Royal 'Chocolate'* — Ezi-Gro Orchids.

Best Miniature — *Cym. One Tree Hill 'John's Quest'* — Cliff and Bev Smith.

Best Seedling — *Cym. (Fancy Free x Peter Dawson) 'Mildred'* — Ezi-Gro Orchids.

Best Novelty — *Cym. (Canterbury x devonianum) 'Blotches'* — Ezi-Gro Orchids.

State Champion Display and Best Commercial Display — a most innovative creation based on the theme "Orchids at Play" — by Ezi-Gro Orchids.

Best Floral Art — a pedestal arrangement — by Margaret Donald.

#### How could future shows be improved?

1. The 2000 show was too widely spread out — by keeping the displays more compact, it would have given the show more impact.

2. No species and virtually no vintage cymbidiums were shown. Perhaps finan-

cial incentives should be offered to encourage more club members to grow and show these special plants.

3. For the third year running, the Grand Champion was a plant that didn't carry more than two racemes. This doesn't excite and tends to confuse the non-orchid growing public, who are invariably most impressed by plants carrying lots and lots of flowers. Introducing a Champion Popular Vote category, and involving the general public would provide a good counterbalance to the existing judging system. It would result in an even better public response to the show and would probably encourage more members to show spectacular specimen plants.

*Nado Lenkic*

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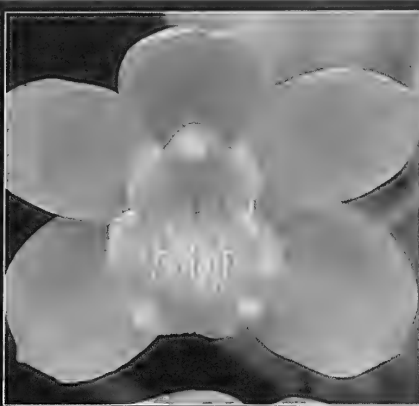
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# Fungal Problems in the Cymbidium House

## Part 1

Text and photography by Helmuth Gerber

When I am thinking of fungi, the kind coming to my mind first, are the ones of a culinary nature, mostly associated with a nice piece of steak; the medical ones I would like to ignore; and the pathological ones affecting my cymbidiums I simply hate, because by the time I realise plants are infected it is usually too late.

For twenty years now I have put up with the annual occurrence of black spotted flowers, brown to black blotched or spotted leaves, "damping-off" of seedlings and mericlones and the occasional dying of individual plants due to rot; the latter one luckily in small numbers only.

Summer 2000 changed all this! It started with a single "Centre Leaf Rot", followed a few days later with leaves turning yellow very quickly and subsequently dropping off on a half dozen or so plants in the same area. Relocating all affected plants safely away from the others and treating them with Fongarid™ proved fruitless — the fungi spread rapidly through the plant tissue and killed them all!

Being short of space I filled up the empty spot on the bench with new otherwise healthy plants only to find out several weeks later that another batch in the same vicinity were affected. To make matters worse other infected plants would appear almost simultaneously only a metre or so away. I noticed the brown markings from a sick plant radiating onto the leaf of a healthy plant where it was overlapped. The realisation that not only did I have a deadly disease in the collection but also one capable of spreading through contact nearly gave me a heart attack!

Relocating the sick plants from the bench, this time not only spraying them with Fongarid™ but also with a combination of Previcur™ and Zineb, saved some in the long run but sadly not all.

### Identifying the problem

Having been in a precarious position by April I bundled up four cymbidiums with various markings, placed them into a large clear plastic bag and took them to the monthly meeting of the Cymbidium Club of South Australia (CCSA). Beside comments of ....throw them in a bin! I was unable to get any help or advice because



Plant No.2 taken to SARDI and diagnosed as having *Colletotrichum goeosporioides* on the leaves and on top of the bulb and *Fusarium* at the base and on top of the bulb



Centre Leaf Rot with expansion. Total destruction of top inner leaves; outer right hand leaf split and showing disease down to base. Purple-brown feathering visible in mid section of leaf

nobody there was capable of identifying the disease, although Glenn Heylen of Easy Orchids fame came close to the mark (why Glenn failed is described later on).

The first breakthrough came in July when Stan Rowlands of NSW appeared at the CCSA as a guest speaker. Being aware of the high humidity in Sydney and the fungal problems associated with it he not only was the logical choice to approach, but also the right one. Stan mentioned an outbreak of *anthracnose* in recent times with description of the disease being similar to mine.

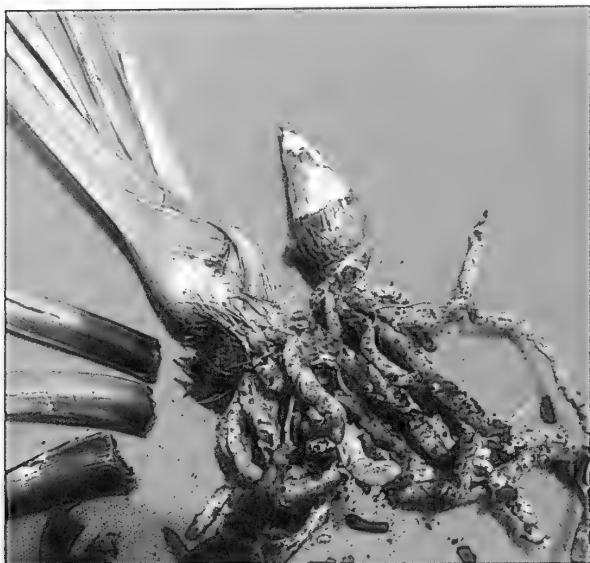
### Taking action

In August I finally decided to call on the experts (at a cost of \$93.50): SARDI — The South Australian Research and Development Institute at the Waite Research Precinct in Urrbrae SA — a division of the Department of Primary Industry SA.

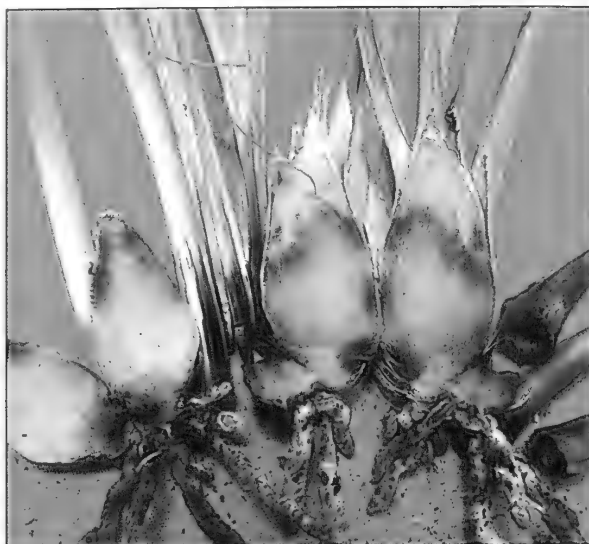
Two specimen plants were taken on separate occasions to the department and the tests revealed: *Pythium* in the potting mix of plant number one although this was unlikely to have been the cause of the plant's condition unless it had been weakened by other causes — the bulb was in an advanced state of rot, hence delivery of a second plant. *Collectotrichum goeosporioides* was found on the blackened spots on the leaves as well as on the rotting parts of the bulbs, caused by *Fusarium*. To quote the advice given by the pathologist; "*Collectotrichum* (anthracnose — leafspot) can be controlled by the application of registered fungicides e.g. Benlate™, Bravo, Zineb and Copper (e.g. copper oxichloride). There are no fungicides that will control *Fusarium*!"

### Treating the problem

I treated the infected and isolated plants as well as the originally infested area with a) Benlate™, b) Zineb/Previcur™, and every plant in three shadehouses with c) Copper oxichloride, as these were the chemicals in my possession. Since spraying in October (I should have done at least two more sprays) I have found four more plants infected with rot from the outbreak area, and all were discarded. Some of the isolated plants are recovering, others are lingering on and if they don't die



Plant No.1 (untested) with rotten base of lead exposed. Very similar to Plant No.2 tested at SARDI



Plant No.1 showing cut-through section; left to right: backbulb, lead, greenbulb, lower sheaths. Rot (most likely *Fusarium*) clearly shown on top and bottom of backbulb; spread from there to greenbulb (advanced rot at lower section) and advanced rot at lead

beforehand most likely will be discarded as well.

Up to January 2001, the total loss of plants reached into the upper twenties with more individual plants found in other areas of the shadehouses infected with either

*Fusarium* or *Pythium* or both. There is definitely a reduction in *Anthraco*se, although the black marks at the bases of some of the leaves are a worry as they are some of the most prominent entry points for all soil-based fungi.

Being more observant I have noticed another menace, namely, the infection and destruction of seed-pods and pod-bearing spikes through fungi.

Regarding the latest rot infected plants I followed the advice originally given and ... "put them in a bin."

From the moment I contacted SARDI to get answers to the problems with my own plants as well as searching for information in general I have had the feeling of opening "Pandora's Box."

#### Fungi the largest kingdom of organisms

Considering the fact that fungi comprises the largest kingdom of organisms on this planet, with a conservative estimate of up to 100,000 species and the possibility of twice as many, research in this field must be an astronomical task. So it is not surprising that most of the energy is directed into medicine and food (and so is the money) with ornamental plants being the stepchildren.

Nevertheless, research has been carried out to some extent on the most common fungi found in orchids and cymbidiums in particular. However, identification of the various species is not easy and only specialised experts with the help of electron microscopes are capable of delivering the right information.

The reason for this is the habit of some fungi to form different strains, changing in shape and size (visible only under a microscope) but also creating different patterns of destruction not only from one species to another but also from one plant to the next of the same kind. This can make field identification not only difficult but almost

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Plant totally destroyed by the primary fungus *Fusarium* and possible secondary fungus *Pythium*. Spore bearing structures are clearly visible under magnification approximately half way up on the right hand side of dried up bulb in middle of plant

impossible. The matter is compounded further when more than one fungus is present.

That's why my own specimen plants were sent to a laboratory in Sydney for proper identification and also the reason Glenn Heylen failed.

#### Dual names

Another oddity exists in the naming of some fungi, some having dual names (I am not referring to synonyms as in the case of *Cymbidium floribundum* also known as *Cym. pumilum*). Because of its highly technical nature I will dwell on the subject only briefly.

The given example is *Colletotrichum* Leaf Spot, one of the most common diseases to foliage plants (not just orchids), also known as *Anthrachnose* = Greek anthrak = coal (lit.black) as well as American *Anthrachnose*. Two fungal organism are responsible for the disease: *Glomerella cincta* (Ston.) Spauld. and Schrenk and *Glomerella cingulata* (Ston.) Spauld. and Schrenk. *Colletotrichum cinctum* (Berk. and Curt.) Ston. *Colletotrichum gloeosporioides* (Penz.) Sacc.

What you see above is only one genus and two species. *G. cincta* and *G. cingulata* are the sexual or perfect stage of *C. cinctum* and *C. gloeosporioides*, the asexual or imperfect stages, respectively. In its primitive form, asexual reproductive cells combine with the same kind, in its advanced form, male and female cells combine. Strangely enough, over time, *Colletotrichum* will change to *Glomerella*. So it is not surprising when researchers find both types on the same host. Under the

rules of taxonomy, *Glomerella* — being perfect — would be the nominator for this genus but because of the vast differences, biologically as well as in the pattern of destruction, and so to make identification easier both names have been retained.

#### Airborne and soilborne types

The pathogenic (disease causing) fungi we are dealing with could be simply grouped into airborne or soilborne types. The spores (seed-like cells) of the former are carried by wind and thermal currents (sometimes long distances) whilst the latter more commonly relies on water transportation (rain, watering, splashing). Both of them need water or high humidity for the release of the spores and the same for germination. Spore producing bodies vary from genera to genera in the shape and size, and come in just as many different names. Common forms come in the shape of the well known mushroom/toadstool, scale or seed. For simplification I will refer to these bodies only as "fruiting bodies" or "spore bearing structures".

At this point I can't stress the importance of these bodies highly enough because they will in time under the right conditions explode and release millions of spores to produce the next generation of

new fungi. They develop in, on, or around infected tissues and can live for five years or more as in the case of *Sclerotium rolfsii* (Southern Blight). Another feature of these fruiting bodies is their hard shell, giving protection from most fungicides; this also applies to spores.

#### Other forms of reproduction

Another form of reproduction must not be overlooked and that is fragmentation. Any piece of a fungus is capable of (asexual) reproduction as the following example will show: assume a fungi is present in a heap of pinebark with the "hyphae" (filaments) spread right through, any single piece of bark with a piece of the fungus attached can and most likely will create a new one unless treated with chemicals or heat (but no guarantee given).

Airborne fungi are more common and widespread, causing damage to leaves and flowers but rarely kill a *Cymbidium* unless the damage is extreme. Their presence can be detected much earlier and plants treated sooner to prevent widespread damage. Most of the fungi we are dealing with (including the soilborne types) are entering the host plants through open wounds, damaged tissue (e.g. sunburn), stomata or plants under stress, although some are



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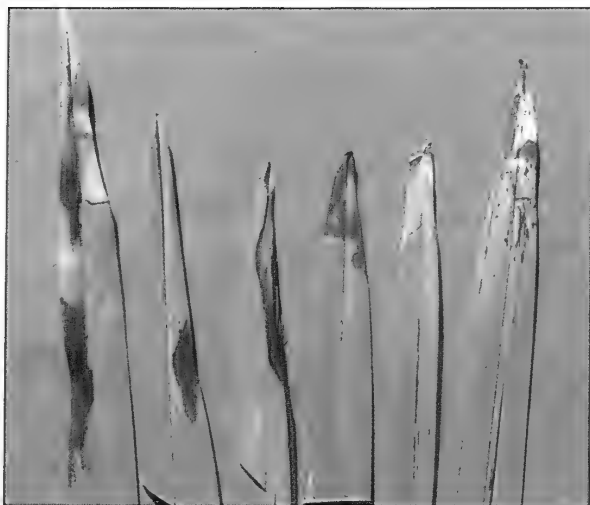
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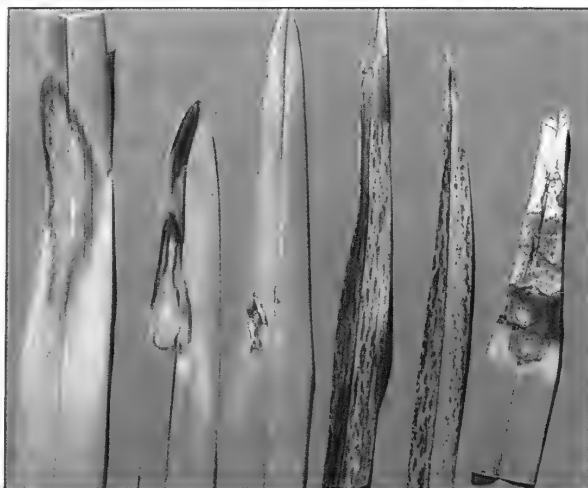
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Fungal disease on leaves, with *Anthracnose* on first four from left. Disregarding markings on leaf tips, the two on right side are showing the less common striping along the veins



Fungal disease on leaves. First two from left showing infection after sunburn; third from left, after physical damage; second and third from right showing markings of an unknown disease; outer right leaf shows circular markings (spore bearing structures are often found within these circles)

capable of piercing directly into healthy tissue.

#### Fungi common in soils and potting mixes

Soilborne fungi are very common in soils or potting mixes. Normally they live in harmony with the plants but once conditions become ideal, like warm weather or high humidity, they will attack with a vengeance, swift and deadly. By the time it becomes evident that something is wrong with a plant, finding bunches of yellow leaves, shrunken and wobbly bulbs (or even the whole plant) it usually will be too late to save it. In case the rot appears only on one side, cutting back to what seems to

be healthy tissue, spraying it with fungicide and treating the cut section with sulphur dust or Steriprune™ might help save the plant but not necessarily. If the plant in question is rare or valuable, try it. Otherwise, don't bother!

Most plants have some form of defence against fungal attacks but seeds and small plants are powerless against "damping-off". This disease is caused by either of the fungi *Pythium*, *Phytophthora* or *Rhizoctonia*, entering the roots and working themselves upward (root rot) or directly into the crown (collar rot) killings the plants almost instantly.

Centre Leaf Rot is commonly caused by airborne spores entering the water filled vase-like structure of a new lead, rotting

the middle leaf and stunting the growth. When pulling out the top dried centre leaf and noticing a putrid smell from the wet lower part, be warned, it could be a secondary infection from any of the soilborne fungi. Death of the lead is almost certain unless sprayed with chemicals in time, and if not cut off quickly will move into the supporting bulb and can kill the whole plant.

In the next issue of *Cymbidiums Australia* I will discuss methods for the prevention and control of fungal problems.

**Helmuth Gerber**  
19 Lascelles Avenue  
Hove, SA 5048  
Ph/Fax (08) 829878448

## Correction: Worth the Wait - published in Oct/Nov 2000 issue

No matter how careful a grower or nursery person tries to be, the problem of inadvertently mislabeling orchids can and does happen from time to time.

In this case, the mistake in relation to the featured crossing, *Cym.* (Thurso x Angelica's Ultimatum), only came to light when we contacted Jim Durrant, the Nursery Manager at McBean's in England, regarding our intention to register the crossing.

Jim kindly took the trouble to check

past dispatch records and that information together with his personal experience, gained from flowering many plants from McBean's crossings, led him to confirm the correct parentage of the crossing illustrated in our photographs as *Cym.* (Angelica's Loch x Goldrun).

*Cym.* Angelica's Loch was created from the hybridisation of *Cym.* Angelica's Advent AM/RHS with *Cym.* Loch Lomond 'JB Russon', while *Cym.* Goldrun was bred from *Cym.* Cariga and *Cym.* Runnymede.

So, while we didn't end up with the cross we'd hoped for, we were more than happy with the result and have no complaints about the true parentage, or the genetics available for future breeding work.

Our thanks must go to Jim Durrant and McBean's for the invaluable help provided and the benefit of their knowledge and excellent records.

**Rob Smith**  
24 William Hunter Crt  
Rosebud, Victoria 3939

# Eye-catching Orchids at Ararat 2000

Text by Dean Roesler - Photography by Michael Matthews

## **Cym. [Sarah Jean x (Loch Lomond x Logfire)]**

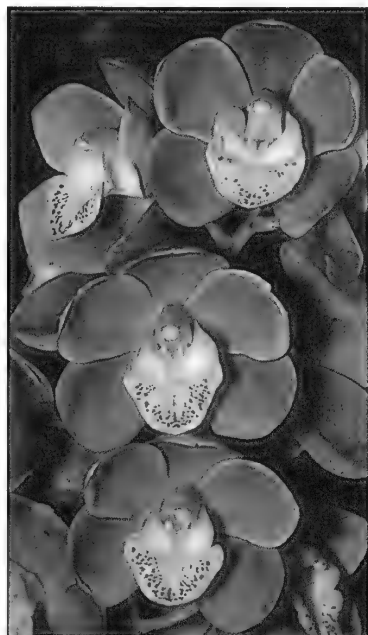
This was my choice for the best new *Cymbidium* shown at the National Cymbidium Orchid Show 2000. From a crossing made by Jeff Browning of Peninsula Orchids this unusually coloured intermediate exhibited by Ken

Purcell from Drouin in Victoria went on to win Champion Intermediate Seedling. Ask ten people to describe its colour and you will get ten different descriptions, nevertheless, it was an eye-catching orchid — different for colour, outstanding for shape, and beautiful for its delicate, contrasting labellum which added to its overall appeal.

capture your attention — indeed it did! Kevin called it 'Black Heart' — it certainly was!

## **Cym. (Loftus Gold x Tracey Reddaway) 'Gold Blush'**

A crossing made and exhibited by Andy Leamon. The 12 small standard



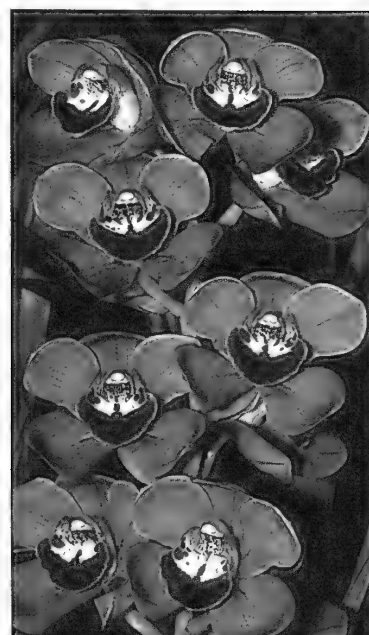
Cym. [Sarah Jean x (Loch Lomond x Logfire)]

## **Cym. (Valley Rainbow x Hazel Tyers)**

It's great to see the name Valley Orchids enter the show arena once more. New proprietor Graham Morris came to Ararat and displayed a whole new batch of seedlings flowered in his nursery. At the same time its former owner Bob Nicolle was lauded for his contribution to cymbidiums by the Australian Cymbidium Society. The seedling Cym. (Valley Rainbow x Hazel Tyers) showed outstanding features, excellent shape, clean white colour and a brilliant dark (almost black) barred labellum.

## **Cym. (James Wattie x Tapestry) 'Black Heart'**

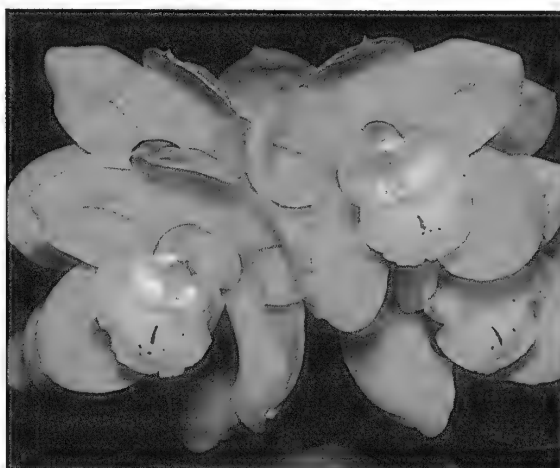
With such impeccable grandparents as Cym. Doris Aurea, Cym. Solana Beach, Cym. Khyber Pass and Cym. Voodoo in its background, is it any wonder we are looking at such an eye-catching orchid? Exhibited by Kevin Hipkins of Royale Orchids this new seedling with 11 flowers featured a labellum to



Cym. (James Wattie x Tapestry) 'Black Heart'



Cym. (Valley Rainbow x Hazel Tyers)



Cym. (Loftus Gold x Tracey Reddaway) 'Gold Blush'

yellow blooms were carried on a very tiny plant. It caught my eye mainly for its delicately marked labellum — creamy yellow with soft pink suffusion on the distal end and a single burgundy vertical tick surrounded by just a few dots of similar colour.

***Cym.* (Sarah Jean x Sweetheart) 'No.2'**

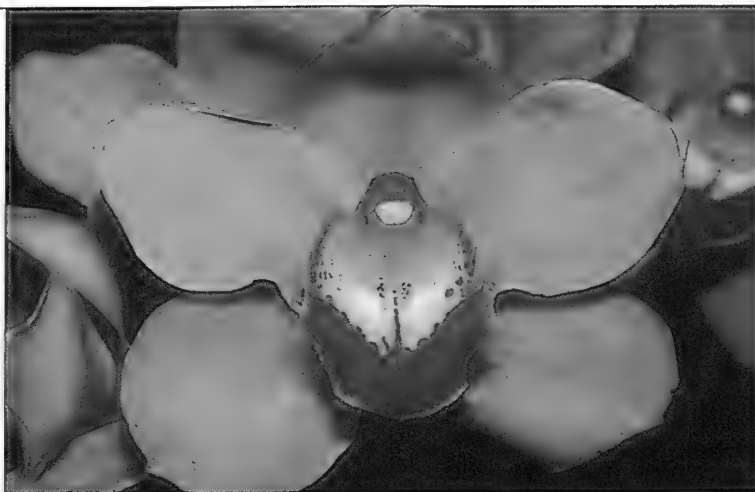
A group of this crossing were exhibited by Paradisia Nursery, all with very similar shape and colouration. 'No.2' went on to be judged the Champion Miniature Seedling of the show. A delicate "coconut ice" pink flower, it should be impressive when grown into a specimen plant.

***Cym.* Fatal Beauty (Wild Colonial Boy x *devonianum*)**

I'm quite sure that this delightful yellow miniature with its heavily banded labellum exhibited by Rosalie Moore is the result its hybridiser, Andy Easton, set out to achieve. A miniaturised version of a *Cym.* Wild Colonial Boy, with its size and spike habit influenced by its *Cym. devonianum* parentage.

***Cym.* Kimberley Station 'No.3' (Red Valley x Cronulla)**

A number of this grex were shown by Kimberley Orchids who also made the



*Cym.* Hazel Fay (Karen x Mighty Mouse)

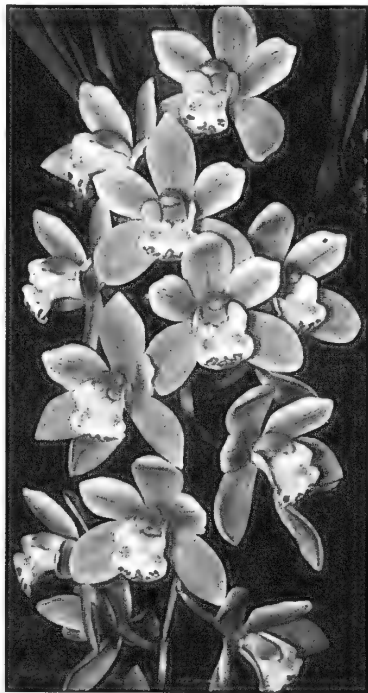
cross. I chose 'No.3' because it had a "lively" bright red banded labellum, and made a nice display with its four spikes carrying some ten flowers on each. A good example of what can be achieved from careful breeding with *Cym.* Cronulla 'The Khan'.

***Cym.* Hazel Fay (Karen x Mighty Mouse)**

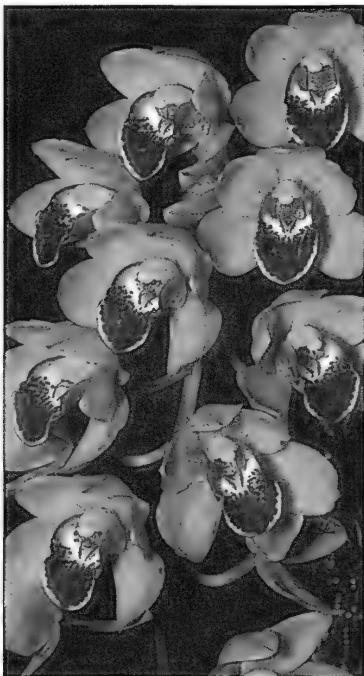
Owner David Wain was just as pleased with this tiny first flowering seedling as he was in winning Grand Champion with his *Cym.* Valley Splash

'Awesome' and rightly so! David is looking for new, brightly coloured, cymbidiums for pot plant production and this eye-catching orange standard with its attractive labellum is just what he's after. Another good result from *Cym.* Mighty Mouse as well as *Cym.* Red Beauty and *Cym.* Coraki, its other parent, which individually have been most impressive as parents in recent years. ■

**Dean Roesler**  
**Lot 14 Lawson Road**  
**Kalbarra, SA 5118**



*Cym.* (Sarah Jean x Sweetheart) 'No.2'



*Cym.* Fatal Beauty (Wild Colonial Boy x *devonianum*)



*Cym.* Kimberley Station 'No.3' (Red Valley x Cronulla)

## SHOWDATES

| DATE                     | TIME                                     | SEASON                             | ORCHID SOCIETY                     | SHOW ADDRESS  |
|--------------------------|--|------------------------------------|------------------------------------|---|
| <b>Queensland</b>        |  |                                    |                                    |   |
| 5-7 April                | Shopping Centre Hours                    | Autumn                             | West Moreton Orchid Group          | Ipswich City Square, Brisbane Street, Ipswich                 |
| 7 April                  | 8.00am-5.00pm                            | Autumn                             | Brisbane                           | Community Hall, Mt Gravatt Showgrounds                        |
| 8 April                  | 8.00am-3.00pm                            |                                    |                                    | Cnr. Logan & Broadwater Roads, Mt Gravatt                     |
| 7-8 April                | 10.00am-4.30pm                           | Autumn                             | Rockhampton                        | Rockhampton High School Hall, Campbell Street, Rockhampton    |
| 7 April                  | 9.00am-5.00pm                            | Autumn                             | West Brisbane                      | Auditorium  |
| 8 April                  | 9.00am-4.00pm                            |                                    |                                    | Mt Cool-tha Botanical Gardens                                 |
| 19 April                 | 9.00am-5.00pm                            | Autumn                             | Southport & District               | Burleightown Market Place                                     |
| 20 April                 | 9.00am-5.30pm                            |                                    |                                    | Shopping Centre   |
| 21 April                 | 9.00am-4.00pm                            |                                    |                                    | West Burleigh Road, West Burleigh                             |
| 19-20 April              | 9.00am-4.00pm                            | Autumn                             | Sunshine Coast                     | Civic Cultural Centre   |
| 21 April                 | 9.00am-2.30pm                            |                                    | Caloundra                          | Minchinton Street, Caloundra                                  |
| 21 April                 | 9.00am-4.00pm                            | Autumn                             | Beaudesert District                | Beaudesert Show Society Pavilion                              |
| 22 April                 | 9.00am-3.00pm                            |                                    | Orchid & Foliage                   | Albert Street, Beaudesert                                     |
| 21-22 April              | 8.30am-4.00pm                            | Autumn                             | Toowoomba                          | Walshs Seeds & Garden Centre                                  |
|                          |  |                                    |                                    | 891 Ruthven Street, Toowoomba (opp. K-Mart)                   |
| 26-28 April              | Shopping Centre Hours                    | Autumn                             | Mackay & District                  | Caneland Shoppingtown, Mackay                                 |
| 28 April                 | 9.00am-5.00pm                            | Autumn                             | Gympie & District                  | Cooloola Home Garden Expo                                     |
| 29 April                 | 9.00am-3.00pm                            |                                    |                                    | The Pavilion, Gympie  |
| 3-5 May                  | 9.00am-5.00pm                            | Autumn                             | Lockyer Valley                     | Lutheran Church Hall, North Street, Gatton                    |
| 5-6 May                  | 8.30am-5.00pm                            | Autumn                             | Darling Downs                      | Walsh's Seeds & Garden Centre                                 |
| 7 May                    | 8.30am-3.00pm                            |                                    | Orchid Assoc.                      | 881 Ruthven Street South, Toowoomba                           |
| 10 May                   | 8.30am-8.30pm                            | Autumn                             | Ayr & District                     | Burdekin Centrepoint Arcade                                   |
| 11 May                   | 8.30am-4.30pm                            |                                    |                                    | Queen Street, Ayr   |
| 10-11 May                | 8.30am-5.30pm                            | Autumn                             | Bundaberg                          | Civic Centre  |
| 12 May                   | 8.30am-1.00pm                            |                                    |                                    | Bundaberg   |
| 11 May                   | 8.30am-5.30pm                            | Autumn                             | Noosa District                     | CWA Hall  |
| 12 May                   | 8.30am-1.00pm                            |                                    | & Foliage                          | Maple Street, Cooroy  |
| 12-13 May                | 9.00am-4.00pm                            | Autumn (Mother's Day Charity Show) | Aspley                             | Community Hall  |
|                          |  |                                    |                                    | Edinburgh Castle Road, Wavell Heights                         |
| 14-18 May                | Shopping Centre Hours                    | Autumn                             | Queensland                         | Sunnybank Shopping Plaza, Cnr. Mains & McCullough Sts         |
|                          |  |                                    |                                    | Sunnybank, Brisbane   |
| 19-20 May                | 9.00am-5.00pm                            | Autumn                             | Maribyrnong                        | Maribyrnong Community Centre, Randall Street, Maribyrnong     |
| 9-10 June                | 9.00am-4.00pm                            | Autumn                             | Great Lakes                        | Forster Primary School, Head Street, Forster                  |
| 15 June                  | 9.00am-7.00pm                            | Autumn                             | Townsville                         | T.O.S. Hall   |
| 16 June                  | 8.00am-4.00pm                            |                                    |                                    | Pioneer Park  |
| 17 June                  | 9.00am-4.00pm                            |                                    |                                    | Condon  |
| <b>New South Wales</b>   |  |                                    |                                    |   |
| 4-7 April                | Shopping Centre Hours                    | Autumn                             | Newcastle                          | Raymond Terrace Marketplace, Raymond Terrace                  |
| 19-21 April              | Shopping Centre Hours                    | Autumn                             | City of Lismore                    | Lismore Centre Shopping Centre, Lismore                       |
| 28 April                 | 9.00am-4.00pm                            | Autumn                             | Species Orchid & Carnivorous Plant | St. Aidan's Anglican Church Hall                              |
|                          |  |                                    |                                    | Mt. Brown Road, Dapto   |
| 3-5 May                  | Shopping Centre Hours                    | Autumn                             | Tweed District                     | Tweed Mall Shopping Centre, Wharf Street, Tweed Heads         |
| 5-6 May                  | Nursery Hours                            | Autumn                             | North Shore                        | Sunnybank Garden Centre, 208 Forest Way, Belrose              |
| 10-13 May                | Shopping Centre Hours                    | Autumn                             | Ballina & District                 | Ballina Fair Shopping Centre, Ballina                         |
| 10-12 May                | Shopping Centre Hours to 4.00pm Saturday | Autumn                             | Blue Mountains & Penrith District  | Penrith Plaza   |
|                          |  |                                    |                                    | 585 High Street, Penrith                                      |
| 10-12 May                | Shopping Centre Hours                    | Autumn                             | Grafton District                   | Grafton Shopping World, Grafton                               |
| 10-11 May                | 9.00am-5.00pm                            | Autumn                             | Nambucca Valley                    | Scout Hall  |
| 12 May                   | 9.00am-4.00pm                            |                                    |                                    | Partridge Street, Macksville                                  |
| 17-19 May                | Shopping Centre Hours                    | Winter                             | Hawkesbury District                | Westpoint Shopping Centre, Blacktown                          |
| 17-19 May                | 8.30am-5.30pm                            | Autumn                             | Port Macquarie                     | Settlement City Shopping Complex, Port Macquarie              |
| 24-26 May                | 9.00am-5.00pm                            | Autumn                             | Casino & District                  | RSL Hall, Canterbury Street, Casino                           |
| 24-25 May                | 9.00am-8.00pm                            | Autumn                             | Coffs Harbour                      | Park Beach Plaza, Pacific Highway, Coffs Harbour              |
| 28 May-3 June            | Shopping Centre Hours                    | Winter                             | QNSW                               | St Ives Shopping Village, 166 Mona Vale Road, St Ives         |
| 31 May-2 June            | Shopping Centre Hours to 4.00pm Saturday | Winter                             | Manning River                      | Manning Hall  |
|                          |  |                                    |                                    | Taree   |
| 7-8 June                 | 9.00am-4.00pm                            | Winter                             | Nambucca Valley                    | Urunga Literary Institute Hall                                |
| 9 June                   | 9.00am-3.00pm                            |                                    |                                    | Urunga  |
| 8-10 June                | Club Hours                               | Winter                             | Tweed District                     | Tweed Heads Bowling Club, Wharf Street, Tweed Heads           |
| 9-10 June                | 9.00am-4.00pm                            | Winter                             | Camden Haven                       | Catholic Church Hall, Ocean Drive, Laurieton                  |
| <b>Victoria</b>          |  |                                    |                                    |   |
| 26-27 May                | 9.00am-5.00pm                            | Autumn                             | Mornington Peninsula               | Collectors Corner, Keysborough                                |
| 2-3 June                 | 10.00am-5.00pm                           | Winter                             | Geelong Orchid & Indoor Plant Club | St. Mary's Hall   |
|                          |  |                                    |                                    | Myers Street, Geelong   |
| 9-10 June                | 9.00am-5.00pm                            | Winter                             | Melbourne Eastern                  | Waverley Campus of Holmesglen T.A.F.E.                        |
| 11 June                  | 9.00am-4.30pm                            |                                    |                                    | 585 Waverley Road, Glen Waverley                              |
| <b>Western Australia</b> |  |                                    |                                    |   |
| 10-12 May                | 8.30am-6.00pm                            | Autumn                             | Peel Region                        | Waikiki Shopping Centre, Cnr. Read Rd & Ngaragara Dr, Waikiki |
| 7-9 June                 | Shopping Centre Hours                    | Autumn                             | Wanneroo                           | Whitford City Shopping Centre                                 |
| <b>South Australia</b>   |  |                                    |                                    |   |
| 5-6 May                  | 10.00am-4.00pm                           | Autumn                             | Gawler                             | Elderly Centre, 14th Street, Gawler                           |
| 16 May                   | 8.00pm-                                  | Autumn                             | SAust Orchidaceous                 | West Torrens Council Auditorium, Cnr. Brooker Tce, Cowandilla |
| <b>New Zealand</b>       |  |                                    |                                    |   |
| 28-April                 | 9.00am-4.00pm                            | Autumn                             | Whangarei                          | Onerahi Community Hall, Whangarei                             |



# Australian Orchid Review

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## ADVERTISERS INDEX

|  |            |
|--|------------|
| Absorba-Stone .....                    | 38         |
| Adelaide Orchids .....                 | 39         |
| American Orchid Society .....          | 50         |
| Austmoss .....                         | 2          |
| B & T Ferns and Orchids .....          | 36         |
| Bryants Orchids .....                  | 56         |
| Burian, Tom .....                      | 54         |
| Burleigh Park Orchid Nursery .....     | 28         |
| Campbell, Colin .....                  | 38         |
| Capricornia Publications .....         | 27         |
| Cedarvale Orchids .....                | 36         |
| Cymbidium Club of Australia .....      | 44         |
| Cymbidium Society of America .....     | 49         |
| Dark Star Orchids .....                | 38         |
| David Keanelly Orchids .....           | 57         |
| Dural Orchids .....                    | 52         |
| Easy Orchids .....                     | 21, 23, 24 |
| Foxfire Orchids .....                  | 54         |
| Florafest Orchids .....                | 42         |
| Glenwood Orchids .....                 | 64         |
| Hills District Orchids .....           | 36         |
| Juvelle Jewellery .....                | 38         |
| Keith's Nursery .....                  | 41         |
| K & H Orchids .....                    | 36         |
| Lonne's Nursery .....                  | 41         |
| Lugarno Orchids .....                  | 2          |
| Maroonah Orchid Society .....          | 36         |
| Mayer, Lou .....                       | 39         |
| Miriam Ann Orchids .....               | 49         |
| Mt Beenak Orchids .....                | 2          |
| Newmarket Hardware .....               | 28         |
| Orchidaceous Books .....               | 27         |
| Orchid Oasis .....                     | 40         |
| Orchid Pot Company, The .....          | 3          |
| Orchid Review, The .....               | 38         |
| Orchadian, The .....                   | 27         |
| Palmoston Orchids .....                | 35         |
| Peter Chiles Orchids .....             | 57         |
| Peter's Glen Shade Houses .....        | 39         |
| P & R Orchids .....                    | 36         |
| Royale Orchids .....                   | 63         |
| Seidel, Alvim .....                    | 40         |
| Sky High Orchids .....                 | 26, 27     |
| Slattery, Frank .....                  | 41         |
| Sydney International Orchid Fair ..... | 21, 42     |
| Tinonee Orchids .....                  | 28         |
| Valley Orchids .....                   | 52         |
| Western Orchid Laboratories .....      | 54         |

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- *Isochilus*
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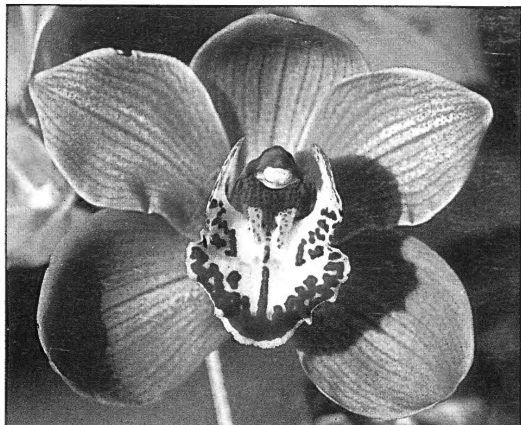
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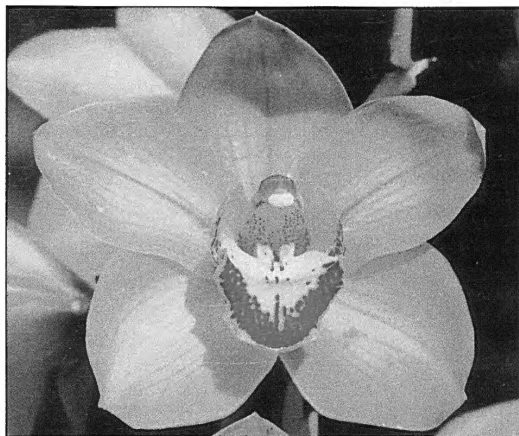
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